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The Medical Press
of Western New York.

Vol. III. JANUARY, 1888. No. 1.

CELL LIFE.

By Julius Pohlman, M. D.
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[conclusion.]

Admitting the necessity for a consciousness or an intelligence somewhere, the question for the investigator to decide is, "Where shall we place it? *Inside* of matter or outside? Shall we look upon the laws of nature as inherent to matter, or shall we, by a wide stretch of imagination, put them upon a metaphysical basis *outside* of matter into some unknowable, undefinable region, regulating from there the material world by some equally unknowable means?" Unfortunately for the latter assumption, we cannot, from a scientific standpoint, comprehend anything *outside* of matter; we cannot imagine anything outside of this earth; even if we find people who have made themselves and others believe that they could do so, such an assumption is an impossibility to the student of nature. Moreover, science cannot see the necessity for such metaphysical speculations as long as simpler and more natural theories can be found to take their place. Does it not seem more rational and within the comprehension of man when we place consciousness into the matter along with its motion, than to speculate about matter in motion, regulated by an outside consciousness too deep for the understanding of the human mind? It surely does not require a very excessively lively imagination to add to the two original requirements of scientific research a *third*, and commence this universe with matter, motion and consciousness; with *conscious* matter in motion? We know nothing about the fundamental matter and force, but we can see their phenomena everywhere, and, while we in all probability will never know more about the ultimate consciousness of matter than we know about its motion, yet as a good working hypothesis we may find that

conscious matter in motion explains many things in a natural way which matter in motion would not unless we admit a constant metaphysical regulating power outside of matter. Under such a hypothesis matter will no longer float about hap-hazard and take on forms and shapes by accidental contact, combining into new forms by a chance meeting, trusting to good luck again for a perpetuation or improvement of its kind; but matter will combine according to definite laws brought forth by its own consciousness, and will change whenever the surroundings demand such a change, because it is able to feel, to comprehend and to appreciate its environments, and can adapt itself to them in order to survive by attracting to itself and combining with such other atoms or molecules or cells as will form a compound or organism stable enough to exist in such surroundings. In a similar way a complex organism or compound, if placed into conditions unfavorable to its existence in the complex form, appreciates this fact by breaking up into such simpler forms or compounds as are then capable of existence. On the other hand matter will no longer be subjected to a constant necessary supervision by an omnipotent outside intelligence residing everywhere and yet nowhere, and which nobody can comprehend.

After we have divested our minds of the current explanation of consciousness, which man with his noble inborn and inbred modesty claims unjustly as exclusively his own, and defining the consciousness we mean as the ability of matter to feel and comprehend the conditions of its environment, we can, perhaps, advance a step nearer to the elucidation of the phenomena of cell life. In addition to this we may speculate further and assume that as the atoms of the different elements have differing weights and combining power, they also possess differing degrees of consciousness, and investigations carried out on this line will, beyond doubt, bring to light many interesting facts regarding the chemical composition of stable and unstable compounds.

If we commence with conscious matter in motion, if we endow the atom with consciousness, with the ability to feel its environment and combine with such other similar or dissimilar atoms as will ensure the formation of a compound stable enough to exist under the conditions, we can, perhaps, understand how chemical changes

occur in our laboratory experiments, and why the same substance placed amid the same conditions will always give the same results; why, for instance, CO will hunt up an additional atom of O to form CO_2, a stable compound, or why H_2 O_2 is always so anxious to give up the one atom of O in order to form simple water, which can exist in conditions unfavorable to the existence of H_2 O_2. We can then, perhaps, begin to understand why under certain conditions certain atoms or numbers of atoms will combine with a definite number of other atoms, because such combinations form a compound best suitable to exist; a fact which the atoms feel as such. We can then imagine how the compounds became more and more complex in the earlier history of our earth whenever the conditions favored and thereby enforced their existence. We can by this means bridge over the gulf that has so far separated the inorganic from the organic world, and at the same time definitely place the so-called spontaneous generation discussion upon the shelf. If we look upon the atom as a conscious unit, a unit which *feels* and appreciates its surroundings, the term "chemical affinity" acquires a different meaning and loses its vagueness, and the heretofore accepted view that matter was inorganic up to a certain period, and then by a miraculous action was changed into organic substance, will need modification. The difficulty seems to exist principally in the general idea of what we term life, because we always associate it with certain functions; but what is life, after all, but an attempt of the organism to exist in a manner most satisfactory; or, what means the same, most economical to the organism; and inorganic matter does precisely the same thing. Every particle of matter represents a certain quantity of conscious force; to-day it is inorganic, to-morrow organic, because the conditions so require it; and if the following day the organic is placed amid unfavorable surroundings it again splits up into the inorganic substances with the liberation of the same quantity of heat as was stored up during the process of its formation. *Life* is more miraculous if we place it at the very starting point of the universe than if we wait until some later period less suitable to our understanding. As soon as we can divest our minds of the "vital force" theory, representing some thing apart from matter, we can understand that life did *not* commence at any one special period of the earth's history; it did not wait until

the earth was sufficiently cooled to support that which we now term "organic matter," but it existed from the very beginning as a part of matter, and like it indestructible. We can change the appearance of matter, but we can no more annihilate it than we can create it, and life or conscious force, being a part of that matter, would be subject to the same laws. Conscious matter in motion changed its combinations as soon as the surroundings proved favorable to the existence of more and more complex substances, until it finally resulted in the formation of protoplasm, and from that into the numberless forms of what we now term plants and animals. And as soon as any of these higher forms find themselves placed into environments where they are unable to obtain the additional atoms or molecules necessary for their existence, they break up into simpler compounds, they *die*, as we say, but invariably take on forms which are able to survive as such; and the cell, representing not only the sum of all the matter and force of its constitutional atoms, but also their consciousness, follows the same law that enabled the atom to combine with other atoms, the molecule with atoms or molecules, in the formation of compounds fit to exist, and cells combined with cells in the production of organisms more and more complex if the environments favored their existence, or breaking up again into simpler forms if the surroundings proved unfavorable to the survival of higher forms. And as the atom represented to us the chemical unit, so the cell may be defined as the physiological unit, living, conscious and capable of feeling its surroundings and of appreciating its own wants under all conditions; a unit which is competent to regulate not only the wants of its own organism when in the simplest form, but also capable of performing the same work in its most differentiated form as a brain cell for the most complex animal body.

Hence, the leaves of the plant turn toward the sunlight because their cells *feel* the presence and necessity of light, and the roots grow toward and take up water and other substances from the soil because they appreciate that the plant, as a whole, could not exist without them; and for the same reason the plant, as a whole, has slowly evolved the most efficient means to disseminate its seeds and thereby ensure the reproduction of its kind. Hence, in the animal body the cells of the nail differ from those of the hair, which again

are different from those of muscle and bone, nerve fiber and brain, because in the slow progress of development each has been specialized to perform certain functions necessary for the whole, and the consciousness inherent to the cells has enabled them to select from the nutritive fluid such substances as were necessary for their existence in the differentiated state; in other words, they are able to attract to themselves such substances as enable them to form a compound stable enough to exist under the conditions.

Hence, those animals which had been able to adapt themselves to their environment survived and were for the same reason capable of perpetuating their kind through natural selection by choosing again the fittest as a mate in the same way as the atom, the molecule, and the cell had done before them in previous periods of the evolution of the animal.

When we thus commence with conscious matter in motion as a starting point, *natural* laws prevail and we can explain existing phenomena of nature according to laws which are within the scope of comprehension of the human mind, while to metaphysics we gladly relegate their legitimate unknowable sphere which lies back of matter and force and consciousness.

From the standpoint of human physiology there is a consciousness in every part of the body, in every cell of the organism, which is quite distinct from that which we generally call consciousness; there is an intelligence at work in the universe from the smallest atom to the highest creature, man, which does not reside in the so-called seat of consciousness, the brain. That conscious intelligence which has its seat in the brain in the average man is so small in proportion to that consciousness which resides throughout his body that a careful survey of the premises must have a tendency to make man modest, less dogmatic and less overbearing. As an illustration of how bad a use man in his wisdom makes of his brain-power as compared with the consciousness of his body let us remember that the only real bodily function which is in part at least under the control of the human will is digestion, and physicians know what a variety of disorders attack the human body as a result of the exercise of man's intelligence in this direction. Do the functions of respiration, absorption, circulation, excretion, secretion, etc., etc.,

suffer proportionally? Decidedly not! All the latter are placed beyond the influence of the much boasted human intelligence, they have their own consciousness, hence they remain in good health, while digestion suffers from ignorant interference exercised by the free will of man. That consciousness which resides in the atom and in the cell, carefully labors for the well-being of the organism as a whole; while the conscious intelligence represented by the grey matter of the cerebrum only too often perverts the normal functions of the body.

Science rejects all metaphysical speculation as not pertaining to her domain; dealing with the knowable she looks for *knowable* causes in all the phenomena where she can investigate; for causes that are comprehensible to the material mind, and which at the same time explain the phenomena as well or better than incomprehensible metaphysical speculations. Hence old-time metaphysical speculations regarding thunder and lightning, storms and floods, plagues and pestilence, health and disease were rejected with benefit to the human race as soon as scientific investigators had discovered the *natural* causes of all these phenomena, and demonstrated that the cause was *in* matter and not outside of it; hence, when the investigator discovers that cell-life finds a simpler elucidation with consciousness placed *in* matter, he fails to see the necessity for constant outside interferences which are beyond his comprehension.

The principal objection to the acceptance of such a view of life would of course be the assertion that it is contrary to the belief of everybody. That kind of argument we can safely ignore as carrying no weight in a scientific discussion. But an apparently more serious objection would be that on this theory restricting it to the animal kingdom all bodies of the same weight would represent the same amount of consciousness, when in actual life they vary in very indefinite proportions. The consciousness of the atom and the cell, however, is not the consciousness of the individual; the latter is the result of the action of the former; the consciousness in the cell at the very commencement of the organism called for a division of labor, and as cells were specialized to perform the functions of respiration, digestion, circulation, etc., others were changed into nerve cells and fibers, and at last into conscious intelligence in the

grey matter of the cerebrum. Hence, although equal weights of the same matter represent equal amounts of consciousness, this does not of necessity imply an equal amount of conscious intelligence any more than an equal quantity of hair, or blood, or bone; for specialization is the result of conscious matter acted upon by its environments, and whether foot or head, tail or brain, is the product of the same cause.

Is such a view of nature less sublime and inspiring than that which generally prevails? It is, perhaps, to some, but certainly not to all! As the scientist does not ask what made matter and force, he does not inquire what placed consciousness in the atoms; he simply assumes their existence, and when by patient investigations his assumptions have developed into theories and facts, he is willing to relegate speculations upon the first great cause, upon the creator of conscious matter in motion, to the realms of metaphysics, where they belong, for not being knowable subjects of demonstration, science is unable to pass judgment upon such questions. In this light science is of necessity materialistic, because she deals with matter only, but the materialism of science is something more different from that which ignorance calls by that name, than night is from day; than the song of the nightingale is from the croaking of a frog. Science and materialism go hand in hand because the realms of science are only found in the phenomena of matter; whenever science steps beyond that she is no longer science, deals no longer with the knowable, but enters the domain of metaphysics, the realms of the unknowable. That much for the often repeated cry of "Materialist"! But can any one point his finger to an investigator who is willing to profess himself an atheist? Can a scientist ever be an atheist? Most decidedly, no! We can safely defy any one to prove such an assertion; for scientific studies do not lead in that direction, never have and never will! Men who obtain their knowledge by direct contact with nature, from a study of nature's laws by personal observations, can never be atheistic, no matter how agnostic they are. What then shall we say when we hear in a review of the scientific work of to-day, investigators and communists and nihilists all mentioned in the same breath and classed under the general term, "An army bent upon destruction"! Have we not in the criminal

statistics of civilized nations a good proof that scientists are fairly good, peace-loving citizens and not at all communistically inclined? Is not such an assertion a direct insult thrown into the face of research, the fountain-head of all modern knowledge? To whom does the present generation, and above all our own country, owe her greatness, if not to the researches of science?

Investigators take precious good care that mistakes made by others are not perpetuated too long; indeed next to making an original discovery, the scientist enjoys nothing better than to show that his co-worker has made a mistake, and in view of this constant supervision he may well be pardoned when he is conceited enough to imagine that he knows by a life-long devotion to science a trifle more in certain branches of learning than those who have studied the field but little, if any. Shall we blame him if the old saying, "Vox populi, vox Dei," has precious little meaning to him?

Because almost everybody believes in an intelligence apart from matter, should that debar us from presenting and discussing new views upon the subject? History teaches us very clearly how much importance can be attached to such "everybody's" opinions. This earth has been as flat as a pancake at previous periods, and *nobody* believed that they were living on a globe, and they had good reasons to reject the idea, for who could live with his head hanging down? The sun rotated around the earth for many centuries, a fact apparent to all because *everybody* could see it; every form of experimental research in physics and chemistry has been hunted down in its time because it brought forth ideas contrary to those held by *everybody;* twenty-five years ago men were almost outlawed because they claimed that the creation of this world had required longer than six times twenty-four hours, a statement contrary to the belief of everybody; if Darwin had died within a year after publishing his justly famous theories of evolution he would probably have been denied a decent burial because *everybody* knew that he was totally wrong; but as he did not die until twenty years later he was placed in Westminster Abbey and all civilized nations contributed to the erection of a monument in his honor. Every advance of science has had to uproot something in which *everybody* believed; but has anybody been injured? Has the world grown better and wiser on

account of the overturning of antiquated views accepted by everybody? I think we all agree that it has, but we also know that the men who had the courage of their conviction and were willing to publish views contrary to those held by everybody, have in past ages been branded as atheists and infidels, and thrown into dungeons, tortured or killed by the well-meaning people of their day. Tortures and stakes have happily disappeared before the light of advancing knowledge, the terms atheist and infidel have lost a good deal of their former force; but even to-day we find sections of the civilized world where the terms are applied to those who are bold enough to assert views not accepted by everybody; a phenomenon which demonstrates conclusively that the survival of the fittest does not always mean the survival of the best, and that even remnants of the intolerant times of the inquisition can survive if planted in a congenial soil and placed in favorable environments.

COMPOUND DISLOCATION OF THE ANKLEJOINT AND ITS TREATMENT.*

BY HERMAN MYNTER, M. D.
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Gentlemen—As an introduction to the subject allow me to report a case of this injury, and show the patient and the result of the treatment.

Mrs. John Bluett, 45 years of age, was admitted to the General Hospital on June 12, 1887. The patient is a large fleshy woman, who eight hours before the admission fell down the front steps of her house, and suffered a compound dislocation of the right ankle, or rather a compound and comminuted fracture of the right tibia and fibula, with extensive lacerations of the tissues on the inner side of the anklejoint. Two surgeons, who were called, advised immediate amputation, but the patient would not submit and therefore entered the General Hospital.

At the examination under ether-narcosis the right foot was seen to be strongly everted, and through a large, horizontal, ragged and torn wound, extending along the whole inner circumference of the

* Read before the Buffalo Medical and Surgical Association, December 6, 1887.

anklejoint, the lower end of the upper fragmen of the tibia was protruding in a triangular shape, showing the fracture to begin near the internal fractured malleolus, and extending obliquely upward and outward. The fibula was broken transversely about two inches above the external malleolus. The epiphysis or lower fragment of the tibia was broken into several pieces, and the finger could with ease enter the joint. The astragalus seemed intact. In the posterior end of the wound the tendon of the tibialis posticus was seen, torn almost through, and the posterior tibial artery was found torn across, both ends being found and ligated. In the anterior end of the wound an isolated string was seen, which was completely torn loose from its connections. It proved to be the anterior tibial artery and vein, and they, too, were cut through and ligated. The skin was diffusely undermined and loosened all around the wound. The question of primary amputation, of course, presented itself, so much more as, besides the complicated and comminuted fracture, the two main arteries of the foot were sacrificed, and as a resection, *lege artis*, could not be performed, as the tibia would have to be cut through at a line with the upper and outer end of the fracture, more than two inches above the articulating surface of the tibia. On the other hand, by removing the tourniquet, a slight flush of the foot was seen, showing that circulation was yet present. After consultation with Dr. Park, who, too, had seen the patient in her home and advised her to enter the hospital, I decided to resect the joint and leave the question of amputation to some future time, unless gangrene should immediately follow.

The operation was performed after the method described in Wyeth's Surgery, with two L-shaped incisions down to the bone, commencing two inches above the external and internal malleoli, extending down to the apex of each, and then forward along the metatarsal bones for about one inch. The periosteum was loosened around the joint with blunt instruments, the external malleolus removed with the chisel, the broken lower fragment extracted and the upper fragment of the tibia and the fibula made to protrude through the external wound and cut through with a common saw above the line of the fracture. The upper surface of the astragalus was thereafter removed with a straight saw. All lacerated, contused and

blood-infiltrated tissues were then removed with scissors, the large cavity thoroughly irrigated with corrosive sublimate and then completely filled with iodoform-gauze from both incisions. The larger part of the wounds were closed with catgut-sutures, a complete sublimate-bandage applied, and the foot secured in a good position with two lateral splints, surrounded with plaster-of-Paris bandages.

June 24.—Wound dressed for the first time. Some small portions of the skin around the edges of the wound sloughing, also the tendon of the tibialis posticus, which was removed, else healthy granulation; the temperature has generally been normal except during a short attack of pleurisy.

July 2.—Cavity contracting and slowly filling up.

July 22.—Cavity rapidly closing.

August 11.—Fourth dressing. Cavity almost closed; the foot in good position. A plaster-of-Paris dressing was applied and the patient discharged for further treatment in her home.

November 1.—The wound has been healed for a number of weeks, but the foot has been kept in a plaster-of-Paris dressing to favor cicatricial retraction. The foot looks almost normal and, unless compared with the left one, shows very few traces of the injury, save the scars. There is no lateral movement in the anklejoint, but pretty free extension and flexion, both active and passive. There is no pain by movements, and she can bear a great deal of her weight on the foot. By aid of crutches and a shoe with two lateral steel splints and a cork sole two inches thick, she walks pretty well, and her walk is improving daily. She only complains that her right foot feels cooler than the left one.

The name, compound dislocation of the anklejoint, is in a majority of the cases so named a misnomer, in so far that the dislocation is of secondary importance and rarely exists alone, except occasionally in forward or backward dislocations, while the fracture of the malleoli and tibia and the rupture of the tissues is the primary and important lesion, complicated with an opened joint. It would be more proper to call this injury compound fracture of the lower epiphysis of the tibia and simply consider it as an aggravated Pott's fracture. This fracture, as is well known, is generally produced by a fall on the foot, combined with a violent twist by which

the foot is strongly everted, so that the outer edge is raised and the inner turned downwards on the ground. As the first result of this abnormal motion the internal lateral ligament is put on the stretch and ruptured, or, what is more frequently the case, the inner malleolus is broken off. The foot is now strongly everted and the malleolus externus being in contact with the outer surface of the calcaneus, is forced outward and upward with the result, that the fibula breaks, generally two to three inches above the joint, a lesion we call Pott's fracture.

If the force of the fall is not spent with these fractures, further injuries occur. Small parts of the posterior margin of the articular surface of the tibia may be broken off or the whole or a part of the articulating surface of the tibia may be fractured and comminuted, the line of fracture running upward and outward as in my case. The foot being strongly everted, the articulating surface of the tibia must rest on the outer upper sharp edge of the astragalus, which, wedge-shaped as it is, will be apt to produce just such a fracture. If all the force of the fall be not yet expended, the lower triangular end of the upper fragment will perforate the skin on the inner surface of the joint, and the result is a compound dislocation of the anklejoint or rather a compound fracture of the lower epiphysis of the tibia and a simple fracture of the fibula, complicated with extensive rupture of skin, tendons, arteries and often with fractures of the astragalus. The difference, therefore, between a simple Pott's fracture of the fibula and the most severe compound dislocation of the anklejoint is only a matter of degree. I leave out entirely the consideration of forward and backward dislocation of the foot, which have more of the characteristics of dislocations, although they almost always are complicated with fractures of the malleoli.

The most important question is that of treatment, and especially in the severe cases of complicated fracture of tibia and astragalus with extensive laceration of the soft parts. If improperly treated or treated without perfect antiseptic precautions, which are difficult or impossible to obtain in the homes of the class of people most apt to suffer this injury, the result is generally diffuse inflammation of bones and joint with gangrene or pyæmia, rapidly necessitating amputation and often under unfavorable circumstances. If properly treated and

under such favorable circumstances and such constant care as can be obtained only in a well appointed hospital, the result is generally good.

The discussion in the New York State Medical Association (Sept. '87), shows how much surgeons yet differ in their opinions in regard to the conservative treatment of this injury. Dr. E. M. Moore of Rochester, who formerly has raised his voice against indiscriminate amputations, advised more conservative treatment and expressed his belief, that surgeons even yet were less inclined toward conservatism than they should be! Of five cases he had treated, four recovered with useful limbs, while one was amputated on account of gangrene, due to the dressing. He would amputate in extreme cases only. It is not mentioned in the report of the discussion, whether his four cases were resected or not. Dr. U. C. Lynde of Buffalo, on the other hand, to judge from the report, was much more in favor of primary amputation than most surgeons of the present day would be. From personal experience he had been led to divide his cases into two classes, those in which there were simple contusion in connection with the dislocation, and of limited area only, and in which he would not amputate, and all the rest, which would necessitate amputation. So, for instance, if there were extensive contusion on both sides of the ankle, and especially extensive injury of the bone, he would amputate at once! If the bone-injury was marked, the astragalus being comminuted, rupture of the posterior tibial artery would suggest the propriety of amputation! Also, in cases in which bone-injury was complicated with rupture of the anterior tibial artery. Dr. Lynde, it seems to me, lays much more stress on the contusion and the rupture of the arteries and favors amputation much more than necessary, although he closes his remarks with the words that if the surgeon must err, "it would be far better to err on the side of conservatism." His remarks leave mighty little margin for erring on the side of conservatism, and I, for one, desire to enter a protest against this wholesale bloody practice. My personal belief is, that in no case ought primary amputation to be performed except in those in which the lesion is produced by railroad or similar injuries with complete crushing of the whole anklejoint and all the tissues, and in which every surgeon would amputate at once.

My rule for the treatment of this injury is the same as in all other cases of compound fracture. If the skin be simply punctured I would enlarge the opening, examine the fracture and the joint, if opened, remove splinters and with scissors remove all suspicious and contused tissues, especially of the capsule. After a thorough disinfection with corrosive sublimate and introduction of a piece of iodoform-gauze to act as a drain, I would apply an antiseptic bandage and support the foot in a bandage of plaster-of-Paris. If the contusion is not very severe, I would leave out the iodoform-gauze, sew the wound together and try to get union by first intention, aided, if possible, by Max Schede's method of healing by a moist blood coagulum. In every case, I repeat, I would first enlarge the wound and examine the injury thoroughly, leaving nothing to chance. If the lower end of the tibia and the astragalus be comminuted, I would resect the joint and remove the whole astragalus, the cartilage of the calcaneus and as much of the contused tissue as necessary, pack the large cavity with iodoform-gauze and apply a plaster-of-Paris dressing over an antiseptic bandage. If the astragalus is intact, I would simply saw off the upper articulating surface. If the arteries were ruptured, I would in every case err on the side of conservatism, partly on account of the successful result in the patient, I have the pleasure of showing you here to-night; partly because an intermediate or secondary amputation, if gangrene should set in, does not offer any worse chances for the patient than a primary amputation.

One question more was discussed in the State Association, on which point, if amputation is to be performed, it should be made, to render the stump most useful.

Syme's operation, I believe, will very seldom be indicated, because, if amputation be necessary, the crushing of the bones and the injuries of the tissues will be so extensive that the heelflap probably would become gangrenous, while, on the other hand, the oblique usual fracture of the tibia would necessitate the removal of about two inches of the lower epiphysis, leaving a stump on which the patient scarcely could walk without an artificial leg.

Generally, therefore, amputation at the junction of the middle and lower thirds of the leg would be preferable. Dr. Wyeth has in the *Medical Record* of October 15, 1887, devised a new modification

for excision of the anklejoint with removal of the astragalus, to be used principally for excision of diseased joints. After the diseased surfaces of the tibia and fibula have been removed through the two lateral L-shaped incisions, as already described, at a right angle to to the axis of the shafts of these bones, the astragalus is removed and the upper surface of the calcaneus sawed or chiseled off, so that a smooth and freshened surface is left, to which the sawed surface of the tibia will fit snugly with the foot in a right angle. With a bistory a small puncture is now made through the sole, and a hole drilled through the calcaneus and one inch up into the tibia. The drill is left in position or a steel nail substituted, and the advantage claimed is the perfect coaptation and immobility of the bones, which makes the plaster-of-Paris unnecessary. The wound is treated with the usual retentive bandage, and the nail left in position for weeks. I must acknowledge that I do not see the advantage of this proceeding. The steel nail, at best, may not produce any injury, but even in cases where we desire bony union, as in resection of the kneejoint, it is entirely unnecessary. With splints and a dressing of plaster-of-Paris we are able to secure as perfect immobility and union as desired. In resection of the anklejoint, whether for disease or injury, bony union is not the most desirable result. A short, stiff ligamentous union with some extension and flexion in the ankle will make the patient able to walk better than will a bony anchylosis or union in a right angle, with the consequent wasting of the muscles, whose functions are superseded.

"ENGLISH AS SHE IS SPOKE"—SOMETIMES.—One need not look away from the practice of medicine for humorous incidents or funny things, but the doctor who keeps his ears open hears remarks that would provoke a smile in spite of his efforts to appear grave and sympathetic. The old lady who told the writer that she had a "most *scrutinizing* pain in the stomach" had no intention of emulating Mrs. Partington; nor did the woman whose daughter "had two *ulsters* in the throat." The young woman who "could not *subscribe* the feelings" she had was not as fortunate as the one who was suffering from a slight cystitis, and said she "had a queer feeling on passing water; it was a *falling away*, and then a dull thud." The young man who informed me that his mother had "*ammonia* on the lungs" was as much concerned as the young mother who brought her baby to the office because he "had a *flim* over his eye." The anxious mother, whose baby had broken a thermometer in its mouth, reported promptly for advice because "the baby had swallowed the *abominator;*" and it was she, also, who described her gastric indigestion at another time by saying that she "always felt better after taking an *epidemic* that emptied out the stomach."

PSOAS ABSCESS WITH FORMATION OF FÆCAL FISTULÆ.

Clinical Report from the Rochester City Hospital.

BY GROS. R. TROWBRIDGE, A. M., M. D.,
House Physician.

A little mulatto child, Sarah T——, four years of age, was admitted to the Rochester City Hospital, August, 1885, to be treated for an antero-posterior curvature, situated in the lower dorsal and lumbar vertebræ. The case was hopeless from the first, and the only thing to be accomplished was to make the little one as comfortable as possible and wait for death to relieve her sufferings. Whether the origin of the disease was from accident or not is uncertain, but in all probability it was tubercular in character, as mulattos are especially prone to all such troubles. I first saw the child April 1, 1887, and then it scarcely seemed possible that her life would be prolonged more than a very few weeks. In addition to the curvature she had ankylosis of the hip and knee joints of both legs so that she could lie comfortably in but one or two positions, her favorite one being on her left side. Emaciation was extreme, the child seeming to be made up only of skin and bones. On May 8, I was called to the children's ward by the nurse to see Sarah, who who was suffering considerable pain from what appeared to be a small abscess on her left side, between the false ribs and crest of the ilium. As it was not yet in a condition to be opened flax-seed poultices were ordered. The follwing morning I found that the abscess had burst open and at that time was discharging foul pus. In the afternoon I was informed by the nurse that undigested food and pieces of candy which the child had eaten, together with fæcal matter, were being discharged through the opening. I must confess I was rather skeptical about this, though it certainly was so, but in order to make doubly certain Dr. George Harrison and myself concluded to give the child some colored peppermint water, and a short time after we were able to smell the odor of peppermint water and see a small amount of it discharge through the fistula. The little patient from this time grew much weaker and the movements from the bowels, to a great extent, took place through the fistula. Stimulants were given four or five times a day, and from this time until

her death she subsisted principally on milk and whiskey. On June 2, a second abscess appeared on her left thigh at about the upper third. This was opened under an anæsthetic and discharged the same foul pus as the fistula in her side. A probe was introduced but without discovering anything. A tent was placed in the abscess for drainage and proper absorbent dressing applied. The day following great was my surprise when Dr. Harrison informed me that some popcorn the child had eaten was being discharged through the opening in the thigh, together with some small pieces of potato and fæcal matter. Again we tried the peppermint water and got its odor at both the opening in the side and thigh. Here, indeed, was a conundrum? Where did the first fistula lead from, and did the second come from the first, or was it a new track? Certain it was they both had an opening into the bowel somewhere. Nothing could be ascertained with the probe, as the track of fistula No. 2 was too tortuous, and we were afraid of doing some injury by probing No. 1. The course from the diseased spine to the opening in the thigh was an indirect one and did not seem to be the line of least resistance. From this time on the child failed rapidly and death occurred on October 18.

Autopsy.—Before opening the body I passed a stiff catheter through the opening in the side and left it in place. I endeavored to do the same thing with the fistula in the thigh but failed. No force was used in the latter case. A careful dissection was then made with the following result: A large abscess was found in the bodies of the second and third lumbar vertebræ, the bones being almost totally destroyed, with considerable disease in the first and fourth and the crest of the right ileum near the sacrum. From this point the pus had burrowed under the large blood vessels and vertebral muscles to a point just behind the middle of the descending colon and nearly opposite the external opening in the side. It had glued the back part of a portion of the colon the size of a dime firmly to the structures beneath. Here was found the end of the catheter which was inside of the descending colon, and so the starting point of fistula No. 1 was evident. At the point where the intestine was adherent an incision was made and two more catheters were introduced, one of which easily passed directly back into the abscess in

the spine, while the other after a little persuasion passed down the thigh and out through the opening of fistula No. 2, which was situated in the posterior part of the thigh one and a half inches below the greater trochanter. The other organs were, with exception of the right lung, normal. In the right lung I found several hard nodules which were evidently tubercular in character.

THE FORAMEN OF MONRO, AND ITS TRUE DISCOVERER.

BY F. BRADNACK, M. D.,
Buffalo, N. Y.

"*Render unto Cæsar the things that are Cæsar's.*"—SAC. SCRIPT.

If, as the proverb tells us, it is right to give the devil his due, certainly it must be equally right (if not righter) that a wise and good man should have *his* due given him, and especially if somebody else has taken this good man's due away from him, and appropriated it to himself. It is to the end that this piece of "even-handed justice" may be done (after having remained undone for a hundred years) that these lines are written. . .

For nearly a century and a quarter our anatomical text-books have, tacitly or explicitly, credited Dr. Monro with the discovery of the little cerebral foramen which goes by his name (the so-called foramen of Monro), whereas it is capable of demonstration that Dr. Monro was not the *first* discoverer of it. Inasmuch as one object of science is truth, it is certainly time that the truth in this matter should be known.

On the 13th December, 1764, Dr. Monro read a paper before the *Philosophical Society* of Edinburg, on the subject of the so-called "foramen of Monro"; and he furthermore asseverated in a book that he had demonstrated the same foramen to his pupils in the year 1753. All this is true, and therefore indisputable.

In the *Regnum Animale* of Emanuel Swedenborg (p. 207) the following observation occurs: "*Foramina communicantia in cerebro vocantur anus et vulva præter meatum seu emissarium lymphæ quibus, ventriculi laterales inter se, et cum tertio communicant.*" Now for the point: This great work of Swedenborg's (*Regnum Animale*) was

printed in 1744; or, in other words, *nine* (*9*) *years prior to the earliest notice by Dr. Monro* of the foramen in question.

Although not a matter of vast anatomical importance, nevertheless 'honor to whom honor is due' is an excellent maxim; and, so long as several anatomical organs and regions continue to go by the names of their discoverers, is is certainly better that they should be accredited to those who really did first describe them, rather than to those who did *not.* This being so, in all right and justice this inconspicuous little hole (which, by the way, it would trouble a full-grown Emmet with a full stomach to crawl through!) should, if it is to be described by any man's name, be nominated henceforth the FORAMEN OF SWEDENBORG (*foramen Swedenborgii.*) And, speaking of this truly great man and profound philosopher (whom a recent biographer justly describes as the most *misunderstood* man of modern times), it will not be out of place to say that, in the opinion of the present writer, he (Swedenborg) is an author who, for his scientific and philosophic value, far better deserves to be studied by the members of our profession than do many others whose books are more frequently found on our shelves. For, in spite of malice and false statements (of which for a whole century there have in regard to Swedenborg been little else), he is unquestionably one of the deepest thinkers and one of the most erudite scholars who ever wrote with a pen. That this was the opinion of Emerson (himself a man of genius) may be seen by the following extract from his *Representative Men:*

"No one man is perhaps able to judge of the merits of his (Swedenborg's) works. It seems that he anticipated much science of the nineteenth century; anticipated in astronomy the discovery of the seventh planet; anticipated in magnetism some important experiments and conclusions of later students; in chemistry the atomic theory; *in anatomy the discoveries of Schlichting, Monro and Wilson; and first demonstrated the office of the lungs.*" A little further on, Emerson concludes in these words: "He (Swedenborg) was a theoretic or speculative man, but whom no practical man in the universe could afford to scorn." No, indeed; and, with all due respect to Emerson, I think nothing would be easier than to show that not only was Swedenborg a "theoretic man",—in the sense that

Newton, Dalton and Faraday, were theoretic men,—but that he was most eminently a *practical* man also; *as* practical a man, for instance, as we of to-day consider Professor Huxley to be.

That (due to years of malicious and stupid misrepresentation) this assertion will scarcely be believed I am quite aware; but, that it can be *proved* I am as certain as I am certain Euclid was right when he declared the whole to be greater than any of its parts, and Sir John Falstaff to be correct when he affirmed that there is "purchase in money."

In conclusion, the true state of the case regarding the philosophic and erudite Swedenborg since his death is very much the same as it appears to have been with a certain German author during his life-time; for, when upon his death-bed, this unfortunate writer remarked, with tears in his eyes, that during the whole of his life there had been but one man who had understood him, and that he had *misunderstood* him.

BEFORE AND AFTER TREATMENT.

You know how it is yourselves.—JOB.

VERY ILL.

Name, Oh doctor! name your fee!
Ask—I'll pay whate'er it be!
  Skill like yours I know comes high;
  Only do not let me die!
  Get me out of this, and I
Cash will ante instantly.

CONVALESCENT.

Cut, Oh doctor! cut that fee!
Cut, or not a dime from me!
  I am not a millionaire,
  But I'll do whatever's square;
  Only make a bill that's fair,
And I'll settle presently.

WELL.

Book, Oh doctor! book your fee!
Charge—I'll pay it futurely.
  When the crops all by are laid,
  When every other bill is paid,
  (Or when of death again afraid)
I'll pay it—grudgingly.

—*F. L. J. in St. Louis Medical and Surg. Journal.*

Howard on Hepatic Cirrhosis in Children.—Most of the established causes of the disease in adults obtain also in children, more especially the use of alcohol, present in 15.8 per cent. of the whole number; syphilis, chiefly hereditary syphilis, present in eleven per cent.; tuberculous disease of other organs than the liver in eleven per cent.; also, but much less frequently than these, venous congestion of the liver, peritonitis, and a general tendency to connective-tissue formation in the system.

Syphilis occasionally tends to a diffuse interstitial hepatitis or cirrhosis, by first inducing an adhesive inflammation of the portal vein.

General arterio-capillary fibrosis is not proved by these cases to be the usual, and probably not even a frequent, cause of hepatic cirrhosis in childhood.

More than half of the cases of hepatic cirrhosis in children do not appear to be produced by the above-mentioned well-established causes of that affection.

There is some evidence that cirrhosis of the liver may be very exceptionally induced by the acute infectious diseases—cholera, typhoid fever, measles, scarlatina,—but that proof of this is wanting.

The habitual use of stimulating diet, or the absorption of the products of faulty digestion, are probably fruitful sources of hepatic cirrhosis in children.

It is in harmony with what is known of the causes of hepatic cirrhosis to believe that the bodies known as ptomaïnes may be capable of exciting a cirrhotic condition, and that investigation of this subject deserves attention.

The period of childhood most liable to cirrhosis of the liver is from the ninth to the fifteenth year inclusive, but that it may be congenital and may occur at any age after birth.

It is twice as frequent in male children as in female.

Its symptoms are essentially the same in childhood as in adult life.

It is frequently accompanied by pyrexia.

Ascites or icterus, and frequently both together, are of common occurence in the atrophic and the hypertrophic forms.

The group of symptoms which have been referred to cholæmia, or to cholesteræmia, or to acholia, and even sometimes to uræmia, frequently ushers in the fatal issue of hepatic cirrhosis in children. —*Am. Jour. Med. Sci., Oct., 1887.—Analectic.*

The Medical Press

OF WESTERN NEW YORK.

Published by THE MEDICAL PRESS ASSOCIATION of Western New York.

EDITED BY

ROSWELL PARK, A. M., M. D.,

WITH THE ASSISTANCE OF

MATTHEW D. MANN, A. M., M. D. W. E. FORD, A. M., M. D.

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Subscription price: $2.00 per Annum.

All business communications should be addressed to DR. CHARLES G. STEELE, Business Manager. 186 West Genesee Street; all others to the Editor, 510 Delaware Avenue.

S. Cecil Stanton, LONDON AGENT, 17 Southampton Row, London, W. C.

BUFFALO, N. Y., JANUARY, 1888.

VOLUME THREE.

With this number we begin our third volume, for which we bespeak in advance the same kind reception with which its predecessors have met. The policy which has regulated the conduct of the journal from the outset will not be changed, since it has exactly represented the purposes which actuated its founders. It has kept out of controversy, thereby possibly disappointing a few. Of society transactions which did not partake of a scientific character it has taken no note. Its sole aim has been to assert itself as the exponent, in its original department, of the best professional work done in the large community of which Buffalo is the geographical center; and in its editorial pages to show itself alive to matters pertaining to advance in theory and progress in practice in all parts of the world.

We are sorry to say that more than once reports of the doings of the city society, and of others as well, have been deliberately omitted because other matter more valuable was at hand. This is not to the society's credit, but we prefer to make a frank avowal of it in order, if possible, to stimulate some of its members to better work;—with a feeling, too, that work which fails to do credit to its source had better not be made public.

It remains for us only to say a word to some of our subscribers. It is no more possible to conduct a journal without money than it is to succeed in any other business enterprise not upon a cash basis. It is very disagreeable to have to send a bill more than once; yet a few men seem to be so constituted as to be indifferent to simple business habits. Subscriptions are payable *in advance*, and money should be sent by P. O. order or postal-note, or by draft on New York, *not by checks on local banks. Prompt payment of bills is the best encouragement the conductors of a journal can have, and it is all they ask for.*

DR. A. M. BARKER.

Since our last issue the profession of this city have been startled by the brief illness and sad death of Dr. A. M. Barker. In the prime of life, and apparently in the best of health, he was taken suddenly and severely sick with acute ulcerative endocarditis, and in less than a week succumbed to the intensity of the attack.

Arthur Martin Barker was born in 1850. He was the only son of the late Professor J. W. Barker, whose melancholy death, the result of an accident, occurred several years ago. From his youth he displayed those energetic qualities which so marked him as a man. His earliest longings were toward medicine, and he graduated with honors from the Medical Department of Buffalo in 1877. He was for a time in charge of the old Buffalo Medical and Surgical Dispensary, and up to a few years ago was one of the visiting physicians to the Sisters' Hospital. He was a post-mortem examiner in 1881–2. He was also formerly connected with the Buffalo Orphan Asylum. He was a member of the Erie County Medical Society, having been its secretary for several years; also an active member of the Buffalo Medical and Surgical Association; the Buffalo Medical Club; the Physicians' Club, and the Buffalo Microscopical Club.

As most of our readers know he was the first Business Manager of The Medical Press of Western New York, and it was largely owing to his efforts that this journal was given so successful a start.

He was a man of sterling business integrity, of true scientific taste, of wide acquirements, a hard student; and by his industry and devotion to his profession he had built up a very large yet constantly

growing practice. He leaves a widow and one son to mourn his loss. In all of the professional and other bodies to which he belonged appropriate and touching mementoes were quickly forthcoming, or resolutions passed to his memory, thus showing the wide esteem in which he was held.

DYNAMIC PULSATION OF THE AORTA FREQUENTLY MISTAKEN FOR ANEURISM.

Probably every practitioner has met with cases where a most careful study and much diagnostic skill were required to decide as between preternatural pulsation of the abdominal aorta and aneurism. The writer took occasion several years ago to call attention to this subject (*Chicago Medical Review*, March 15, 1882, p. 133), it having received but scant mention in American journals. Although references in current literature had been scarce it had been treated of by Hope, Stokes, Burns and Walshe, in their respective treatises on diseases of the heart, as well as by Morgagni, Thilenius, Pinel, Hunter, Hodgson, Albers and Laennec in the past, and Handfield Jones among present writers. And at the last meeting of the British Medical Association Dr. Sidney Philips read a paper entitled "Pulsating Aorta," in which he referred to the same matter (*Br. Medical Journal*, Oct. 8, 1887, p. 763).

Without stopping to object to the title of his contribution we may allude to its importance, since it was evidently prepared with great care. The causes of the undue aortic disturbance are sometimes mechanical, sometimes emotional. Thus indurations, abdominal tumors, gasseous distensions and fæcal accumulations act in a direct way, and hypertrophy of the heart with consequent displacement, adhesions of the heart to the pericardium, enlargement of the vena cava, increased action during certain fevers, irregular action of the diaphragm (Lewenhoeck), or convulsive action of sections of the recti muscles in an indirect yet mechanical manner. It is moreover frequently associated with hypochondria, depression of spirits hysteria, chlorosis, vaso-motor disturbances, or various other mental or nervous disorders. Not infrequently, too, it is met with along with intestinal haemorrhage and haematuria.

In two of Philips' cases there was change in the pupil, in one mydriasis, in the other the reverse.

The pathological nature of the disturbance is unknown; *post mortem* examinations have revealed no change save possibly atheroma. It must therefore be classed as a functional disorder, probably due to deranged vaso-motor or ganglionic supply. An analogous pulsation of other vessels is seen in Grave's disease, and coincidence of the two has even been noted. It would seem as there were a paralysis of the vessel wall and that the undue throbbing were thus caused; still this perhaps would not account for the violence of the pulsation while the heart is acting quietly. In some respects it may be comparable with tumor of distended intestine from mere paralysis of its muscular coat. A peculiar dryness of the mouth and fauces accompanies some cases, which may perhaps be accounted for, like the changes in the pupils, on the theory of irritation of the sympathetic. More or less pain and other disturbances usually characterize these cases.

Diagnosis must be made with care. Violence of pulsation, with a semblance of *bruit* and thrill, accompanied by gastro-intestinal haemorrhages and complaint of pain in back and abdomen, will give these cases a measure of alarm to which they are not entitled. These unduly pulsating aortas however always lack the peculiarity of lateral expansion with each throb, which stamps the true aneurism; they merely give a sort of forward jerk. There is also no discoverable tumor, and the symptoms are usually irregular and intermittent; further than this they lack the constant increase in size and exaggeration of other symptoms so significant of aneurism.

To the signs and tests given by Dr. Philips we add that suggested by Scheele in the *Berliner Klin. Wochenschrift*, of July and August, 1878. This consists in making firm simultaneous compression of both femoral arteries for a few seconds. If there be aneurism patients will immediately complain of pain in and around the tumor. Otherwise it will give only ordinary discomfort. This test has given us great satisfaction in several cases, though one must bear in mind that Saundby reported in the *Brit. Med. Jour.*, of February 15, 1879, a case where a weakened aneurismal sac gave way under this obstruction to the current and death was the speedy result. In such cases, however, it would hardly seem as if such an experiment could have been called for.

Treatment must depend on the ascertained cause. Attention to the digestive tract in one series of cases, appropriate mental and physical hygiene, with such drugs as may be indicated in those of emotional or nervous origin. The affection usually passes away in time.

THE CONDITIONS WHICH SIMULATE OVARIAN TUMORS.

It is somewhat surprising that so large a number of cases apply to our operators with the diagnosis of ovarian tumor, in which either no tumor exists or the existing growth has an origin far removed from the ovaries. Among twelve cases recently seen, each having been pronounced to have a tumor of ovarian origin, in only two was the diagnosis correct. Many of these cases came long distances, confidently expecting relief, often at great expense, with more or less suffering. In one instance, where malignant disease of the omentum existed, the patient's death was undoubtedly hastened by the journey, no operation having been possible.

The most common error is mistaking for tumors one of the many conditions which simulate them. We would caution those not experts in such examinations, before pronouncing a patient to have an ovarian tumor, or any other kind of a tumor for that matter, to be sure that a growth of some sort is present. This ought not to be difficult if a careful examination of the fully exposed abdomen is made, and if the simulating conditions are constantly born in mind. The conditions most commonly mistaken for tumors are: 1. Abnormal accumulation of fat in the abdominal walls. 2. Accumulation of gas or fluid in hollow viscera. 3. Muscular spasm. 4. Free fluid in the abdominal cavity. 5. Pregnancy. 6. "Inferred tumors," diagnosed from the subjective symptoms alone, without a proper physical examination. Instances where each of these conditions have been mistaken for a true tumor have been presented to the writer within a comparatively short time.

Obesity.—Mistaking fat for a tumor is very common, no less than six such cases having been seen within the last year. The diagnosis can be readily made by grasping the abdominal wall between the thumb and finger, or between both hands, so as to appreciate its thickness, just as we would apply the same test to any other article.

Five or six inches of fat, spread over the abdomen, is enough to account for its increased size without a tumor. The accumulation of fat in women is generally in the abdominal walls, and not in the omentum as in men. These cases occur most commonly about the menopause, and, being accompanied by certain vague uterine symptoms, with more or less pain and inability to walk or stand, are very deceptive unless the practitioner is on his guard. As additional aids to diagnosis it is to be remembered that large ovarian tumors generally induce great emaciation; that on percussing the abdomen where there is a large tumor, it will be uniformly flat except on the flanks, and that the tumor is firm to the touch. With fat there is much less sense of resistance and always more or less resonance on percussion, especially if the hand used to percuss upon is pressed firmly and deeply into the abdominal wall. When very fat the abdomen hangs in folds as the patient sits up, and the umbilicus is retracted. The sense of fluctuation in a mass of fat may be misleading, but it is very different from the fluctuation of an encysted fluid. The true nature of the apparent fluctuation may be appreciated by percussing on some other fatty part of the patient's body, as the breast or thigh, when exactly the same pseudo-fluctuation will be perceived.

Meteorismus.—It seems scarcely possible that distention of the stomach or bowels with gas could be mistaken for a fluid or solid tumor, and yet such mistakes have been made, and not only has the false diagnosis been made, but it has been acted upon and the belly opened. It would seem as if careful palpation and percussion would serve to exclude a tumor and make the diagnosis certain.

Phantom Tumors.—Either this is a very rare condition or its existence is quite generally recognized. It consists of a distention of the intestines with gas, together with a muscular spasm, which makes the affected part prominent, firm and tender. The tumor is tympanitic on percussion, variable in size, and entirely disappears under an anæsthetic.

Retention of Urine.—The over-distended bladder certainly greatly resembles a thin-walled ovarian cyst. Still there is no excuse for an intelligent physician's making the mistake of confounding them. That this has been done we have had ocular proof. The possibility of its occurence should remind us of the necessity of always

passing a catheter, before pronouncing on the character of a recent, fluctuating tumor, in the lower part of the abdomen.

Ascites.—Some of our best operators have made the mistake of opening the abdomen for tumor only to find it filled with free fluid, and no tumor present. The shape of the abdomen alone should put us on our guard, it being much flatter in ascites and pointed, almost conical, when a cyst exists. This can be best appreciated by putting the patient on a hard bed or table. The cyst will then be made more prominent. By palpation and percussion the cyst wall can generally be mapped out in the epigastrium, below the end of the sternum, while in ascites this region is tympanitic and the flanks dull instead of tympanitic as they are in cystic disease. This is a rule to which there are few exception. When the fluid is free (ascites) there is always more or less resonance on percussion, the resonant points shifting with the position of the patient.

Pregnancy.—It is curious that the diagnosis of pregnancy in the latter months should present so many difficulties. Such seems, however, to be the fact, judging from the number of cases seen in which a mistake was made. There is one sign of pregnancy which we would especially refer to in this connection, the so-called Braxton-Hicks sign. It is now well known that throughout the whole of pregnancy the uterus alternately relaxes and contracts. The changes in density, hard during a contraction and soft when relaxed, can be readily perceived, unless the abdominal walls are too thick, if the examining hand be kept closely applied to the abdomen for several minutes (not seconds). In this we have a certain sign to distinguish the pregnant uterus from almost any sort of tumor.

"*Inferred Tumors.*"—The last error and the most astonishing is where the existence of a tumor is inferred from the subjective symptoms alone, without any physical examination to control. Yet this is sometimes done by practitioners of average good sense and judgment. It is hard to imagine the motive; it cannot be ignorance.

Besides these various conditions simulating ovarian tumors there are the different kinds of tumors resembling ovarian cysts, which must be distinguished from them. A consideration of this subject at this time would lead us too far. M.

Correspondence.

LETTER FROM VIENNA.

VIENNA, December 7, 1887.

Dear Doctor—The student of nervous diseases is attracted to Vienna by Professors Nothnagel, Rosenthal, Meynert, Benedict and Leidesdorf. As is well known, the teaching here is eminently clinical, theoretical lectures without illustrative cases being comparatively rare. At the clinics of these professors, one sees every variety of cerebral, spinal and peripheral nervous disease, and has also an opportunity of comparing the methods of diagnosis and treatment of the different men. As it is impossible in one letter to speak of each of these teachers I have chosen the clinic of Prof. Rosenthal as my subject for this, the first of a series which I unluckily promised to write on studies with the European neurologists.

The course given by Prof. Rosenthal is attended by but few students, for nervous disease is not a popular specialty with medical men. It is fortunate for me that this is so, as full liberty is given the students to personally examine every patient. He examines not only orally and physically, but in cases of disease of the cord and nerve trunks, electrically. This feature of the course is especially valuable, as the diagnosis made is reported to the Professor, who then goes over the case himself, announces his opinion and directs the treatment, which if it be electrical the student is allowed to carry out.

The variety of diseases seen thus far has included myelitis in different stages, scleroses of the different portions of the cord, peripheral paralyses of nearly all the principal muscle groups, neuralgias of most all the nerve trunks, hysterias, disturbances of cutaneous sensation, trophic disorders, epilepsy, cerebral tumors and a large number of cases of neurasthenia.

The examination of a new case is conducted in the following manner: The patient first states his own history, then a physical examination is made, the spine searched for tender points, the different reflexes tested, the power of flexor and extensor muscles measured, and the cutaneous sensibility examined.

If the case is one of paralysis an electro examination is made, according to the methods of Erb of Heidelberg, in the following

manner: First, the muscular irritability is tested by the faradic current, the anode being placed on the back of the neck, and the cathode placed on each muscle to be examined. The muscles are then treated in the same way by the galvanic current. The sound side is always used for comparison. The nerves supplying the paralysed muscles are then examined; first, as to irritability to cathodal closure; second, to cathodal opening; third, to anodal closure; fourth, to anodal opening. The strength of the contractions should occur normally in the following proportion: Cathodal closure contraction, 4; anodal closure contraction, 2; anodal opening contraction, 2; cathodal opening contraction, 1. Any deviation from this is an index of disease. The nerve is tested thereafter once a week in order to note the progress of the degeneration. I do not intend that this letter shall be devoted to electro-diagnosis but rather to a description of Prof. Rosenthal's methods and to a brief statement of his rules of treatment in a few of the more common diseases.

Exopthalmic goitre he treats by giving internally tinct. ferri. chlor. m. xx, three times daily. Locally he passes a faradic current of moderate strength through the goitre, putting a small sponge electrode on each side of the tumor. Each sitting lasts ten minutes and is repeated daily. He does not use deep injections of tincture of iodine as advocated by some.

I have had a good opportunity to see the value of his treatment, and have been astonished at the marked improvement in the general condition of the patients, the steady decrease in the size of the tumor and the gradual return of the eyes to a nearly normal position. In cases of neuralgia the treatment depends largely upon the constitutional condition of the patients, anæmic cases receiving large doses of iron; those of malarial origin are given quinia sulphate ten grains morning and evening; patients with a rheumatic history are treated with generous doses of salicylate of sodium. He relies upon antypyrin in all obstinate cases. His usual mode of administering this drug is by a hypodermic injection of ten grains once or twice daily, depending upon the case, at some point along the course of the nerve. In almost all cases he uses strong galvanic currents, the anode being placed at the nape of the neck, and the cathode at different points along the affected nerve. The duration of the sitting

is about three minutes. The current is applied at intervals varying from twenty-four hours to three days, depending upon the case. He rarely resorts to morphine or other narcotics, unless antipyrin be one; nor is he given to the use of such counter-irritants as are found in liniments, vesicating plasters, etc.

In neurasthenia as an aid to the course of diet, change of occupation, rest, etc., he recommends vigorous faradization of the back with the wire brush or the electrode labile and general massage. Tabes dorsalis, which, by the way, he does not hold to be of as frequent syphilitic origin as does Eulenburg, he treats invariably by the bath and half bath. In cases of the poorer class he substitutes the pack, which is prepared thus:—the patient is directed to wring a sheet out in water of a temperature of 78° F., and wrap it around him from his armpits to his heels, then to wind a dry blanket around the sheet, the patient to remain in this pack from one-half to one hour.

Prof. Rosenthal regards this pack as one of the most valuable of tonics to the nervous system. He says, and so do the patients, that it has a decided effect in relieving the pains which are so severe in locomotor ataxia. Cases of peripheral paralysis receive a thorough treatment. The muscles are faradized and receive massage daily, and the nerve trunk is treated by a mild galvanic current. The only instance in which I have seen hypnotism used as a means of treatment was in a case of hysteria. The patient, a girl, had tremor of the left lower extremity. She was hypnotized, and while in that state she was told that she was not to have any more tremor for fourteen days. On the fourteenth day the tumor returned and she was hypnotized again every two weeks for three months. Before this treatment was commenced the tremor was constant. After the treatment she had no return after the second week.

But it will not do for me to take up the whole list of nervous diseases that one sees at this clinic, for one day's session, properly reported, would make too long a letter. Did I not feel that I had already taken more space than belonged to me, I should like to write of his cases of nervous dyspepsia; but a look at his book on Magenneurosen and Magencatarrh, convinces me that it is a subject for a separate letter.

J. W. PUTNAM.

Clinical Lecture.

SURGICAL CLINIC, BUFFALO GENERAL HOSPITAL.

Reported by W. H. Bergtold, M. D.

The following cases were operated on during the clinics of Prof. Roswell Park:

October 1.—*Median perineal cystotomy for chronic cystitis.*

T. D.—Spaniard, æt. 46.—A very imperfect history could be gathered from this patient, as he spoke and understood very little English. Has had some chronic bladder difficulty for nearly fourteen years. Thinks he has had clap six or seven times. During the past six months has experienced especial trouble in urinating, being able to pass but a few drams of water at a time, and as often as fifteen or twenty times during the night alone. At the time of entrance he was micturating almost every quarter to half an hour, voiding only a few drops with a great deal of effort and pain.

Urine strongly alkaline, with copious deposit of mucus, pus corpuscles and phosphates. No casts could be found. Exploration of urethra with olivary bougies revealed several strictures along its course, smallest admitting No. 20 F. Operation, ether. Median perineal section with dilatation of prostatic urethra was made, evacuating considerable decomposing residual urine. After digital exploration of the bladder Prof. Park used his electric cystoscope to great advantage, being able to demonstrate that the bladder walls were very much reddened and thickened, looking like a case of old chronic conjunctivitis, thus exhibiting beautifully the local changes in chronic cystitis. The internal vesical surface was thoroughly swabbed with a strong solution of nitrate of silver (2 gm. ad aquæ 30 cc.). The urethra was well stretched and dilated throughout its entire length, finally allowing a 40 F. sound to pass with ease. A *canule á chemise* was inserted into the bladder to keep the perineal wound patulous and to give free vent to the urine. The direction given was to wash the bladder daily with a saturated solution of boric acid. This case, as might have been anticipated by reason of being in, comparatively speaking, so young a man, has made an almost uninterrupted improvement. Highest temperature existed on

the second day after the operation, to wit, 101.4°. It is now normal. He has had no chills following such vigorous urethral dilitation.

Canula was removed on the seventh day, leaving the perineal wound to close by granulation. Urine is now clear and vesical spasm and tenesmus have diminished markedly since the operation. At present he urinates about five or six times during the day and is passing some water through the penis. Prof. Park stated that in cases such as these, when other measures had been exhausted, he knew of nothing so likely to relieve the pain and inconvenience of the complaint, and at the same time give the bladder so effectual rest, as cystotomy. As introduced a number of years ago, by the late Dr. Willard Parker, it was made by the lateral section resorted to in lateral lithotomy; but ever since he had had occasion to use it, in a considerable number of cases, he has practiced the median section which has been so highly extolled by Sir Henry Thompson, as subjecting the patient to a minimum of cutting, and as permitting a freer exploration of the entire inner surface of the bladder by means of the index finger.

October 5.—*Incarcerated scrotal hernia with impending strangulation.*

A. G.—German, 25 years of age. Was brought in by the ambulance, giving the following history. So long as he could remember, he had had a left scrotal hernia, always easily replacable, and had successfully worn a truss for fourteen years without experiencing any pain or trouble. Two days before entrance, while shoveling gravel, his truss broke, allowing the bowels to come down into the scrotum. At night after having continued his work all day he was unable to reduce the rupture and coincidently began to feel pain in the scrotum and hypogastrium.

During the night some vomiting occurred, succeeded by more or less continued retching. Bowels moved the next day. In the whole course of the trouble no stercoraceous vomiting appeared, excepting a slight amount during the administration of the ether. Examination revealed a large tumor about the size of a fœtal head, occupying the left side of the scrotum. Gentle and vigorous taxis failed to get the intestines back, even under the anæsthetic. Operation, ether. Long incision over inguinal canal and free division of everything down to the sac. Reduction still being impossible the

sac was freely opened. The constriction was found at its neck and a condition of incarceration with impending strangulation easily recognized. Intestines appeared very dark and congested, but not gangrenous. In the effort to reduce, the aid of gravity was sought and the patient's lower extremities were raised high in air, so that he was resting only on his shoulders.

The gut after being well bathed in a solution of bichloride was slipped into the abdominal cavity. After this the sac was carefully isolated and then ligated with stout catgut at the level of the external ring and its exterior portion excised. The external ring was closed with three silver sutures, catgut drainage inserted through a counter opening and wound dressed with bichloride compresses. Very little shock followed. The primary dressing was removed on third day after the operation and the line of incision found to have united by first intention. With the exception of a slight rise on the second day this patient's temperature has been nearly normal since the operation. At present he is fully recovered.

The operator laid particular stress on the combination of the measures for radical cure with those addressed merely to the relief of the strangulation. Such an addition to the ordinary herniotomy entailed no appreciable added risk, if antiseptically done, while the benefit to the patient was inestimable. He had frequently practiced operations for radical cure, and of them all, preferred that in which the sac was dissected out, ligated, excised beyond the ligature, and the external ring closed by silver sutures which were twisted, cut short, turned in, and then left *in situ*, where instead of being in any way a detriment, they served as a continual safeguard. He had never known an unpleasant result to follow this method.

Epithelioma of penis; complete removal, insertion of urethra in the perineum.

J. W.—American, aged 65. Nothing of importance in family history; has several healthy children; always had a phimosis of a marked degree. Nearly thirty years ago he noticed a light excoriation on his glans penis, this spot persisted and enlarged very slowly for more than twenty-three years. About six years ago the trouble was pronounced malignant by a competent surgeon, who advised and performed amputation of the glans. The patient states that a rapid recovery was made after this treatment, and that he was apparently

free from recidive until last May when the growth reappeared and spread, the major portion extending into the corpus spongiosum. Examination: Presented a marked epitheliomatous ulcer on the stump of penis which was extending on its under surface; a few inguinal glands enlarged; no bladder or renal disease discernaable; general health good. Operation, ether. The corpora cavemosa were separated from the corpus spongiosum and, with their cruræ, entirely removed. The spongy portion was amputated within an inch of the symphysis, a perineal incision in the median line just posterior to the perineo-scrotal junction was carried down to the urethra, and through this opening the stump of the corpus spongiosum (containing the remainder of the pendulous urethra) was drawn from above. After clearing away its enveloping and adherent spongy, fatty and connective tissues, the urethra was cut off close to the perineal integument, split, and each half stitched to the corresponding edge of the perineal wound. The upper opening was closed with catgut, and a collodion and iodoform dressing applied. Temperature on the third day after operation was 103°. Two of the anterior perineal stitches were cut, giving exit to a few drops of pus and allowing freer drainage from above. The pyrexia almost immediately declined, and there have since been no unfavorable symptoms. This method was selected mainly because in amputations close to the symphysis the stream of urine could not be guided and directed properly; causing annoyance and discomfort from soiled clothing, etc., while in the operation chosen the patient can urinate when seated. The patient made an excellent recovery.

Book Reviews.

Transactions of the Asscіation of American Physicians. Vol. II. 1887.

The organization of "The Association of American Physicians" was not without pretension, and something unusual was expected of a society, the membership of which was limited to those who bore the credentials of meritorious work, and who were content to study medicine without sharing its politics and passions. After reviewing the second volume of its Transactions the critical reader is bound to congratulate the association, first, because the book is small, and, second, because its value is great. There are seventeen original contributions. The first, by Dr. R. Palmer Howard, of McGill University, on "Hepatic Cirrhosis in Children," is admirably presented, and one ends with the feeling that one must read it again.

More evidence is here added to the view that jaundice and ascites are not very uncommonly associated in certain forms of cirrhosis of the liver. There are two papers on "Hemorrhagic Infarction"; one by Welch, of Baltimore, and the other by Osler, of Philadelphia. They are good companion pieces, and belong to that order of productions of which we cannot have too many. The last paper is by Putnam, of Boston, and entitled, "Chronic Lead Poisoning." It invites to study of the urine for signs of lead in those who present no history of colic or the "blue line," but who have evidences of structural nerve disease. The animated and instructive discussion of the contributions is a marked feature of the transactions, in which respect many older societies might profit by the example of the association.

ANATOMY, DESCRIPTIVE AND SURGICAL. By Henry Gray, F. R. S. Edited by T. Pickering Pick. New American from the Eleventh English Edition, thoroughly revised by W. W. Keen, M. D., to which is added Holden's Landmarks, Medical and Surgical. Pp. 1100. Edition in colors. Philadelphia: Lea Bros. & Co. 1887.

Gray's standard anatomy, which has been and will be for years to come *the* text-book for students, still recognizable in its new dress, yet vastly improved by the editions and additions it has enjoyed. The section on Development has been revised by Dr. Ryder. That on the Brain, has been carefully made over by the American Editor who has substituted the cuts of Ecker for the old ones, who has carefully described the cerebral circulation, and who has added some extremely important new matter on Cerebral Localization and Topography. Minor additions will be noted throughout the book. One hundred and thirteen new engravings have been added, of which many are original. Among these are many of obvious utility, such as a series of sections through important joints; a series of frozen sections through the trunk, the extremities, and the female pelvis; cuts illustrating the histology of various tissues; the shoulder and pelvic girdles; the interior of the nose and the larynx; the development and occlusion of the teeth and the absorption of the alveolar process; the palmar fascia; a series giving the points for the application of electricity to the muscles; a series on the circulation of the brain and spinal cord; another series to illustrate

cerebral localization and topography; another on the cutaneous distribution of the nerves; a number of cuts to elucidate the anatomy of the cerebrum; two showing the sympathetic nerve; and others. Wherever practicable, colors have been introduced to distinguish the veins, arteries and nerves, so that in the colored edition the American additions shall be in harmony with this novel feature of the latest English originals. The origins and insertions of muscles, as showing in the figures of the bony skeleton, have also been colored. As a curious minor error fig. 351 has been turned half way round. Now for the first time the American student can learn from "Gray" what is the internal capsule. The text has been prefaced with a paper "On the Systematic Use of the Living Model in Teaching Anatomy," and in the section on the Muscles those postures, resisted motions, and athletic exercises have been noted which have been found in teaching to be best adapted for showing the form and action of individual muscles. The additional interest thus infused into the subject will lead the student to use his own person as an ever-present living model—a habit possessing the greatest possible usefulness. Dr. Keen, as American editor, has performed his difficult task with that painstaking thoroughness which characterizes everything he does, and he has certainly conferred a literary blessing upon thousands of American students. The publishers, too, have produced a beautiful and well-nigh perfect book, which only needs to be examined to be perfectly appreciated.

FUNCTIONAL NERVOUS DISEASES; THEIR CAUSES AND THEIR TREATMENT. By Geo. T. Stevens, M. D., Ph.D. Pp. 217. New York: D. Appleton & Co. 1887. Buffalo: Otto Ulbrich.

The author of this monograph has been long known to the profession as a gentleman with a hobby, upon which he has frequently presented his views. The volume in hand is essentially a translation of a memoir prepared for and crowned with a prize by the Belgian Royal Academy of Medicine. After alluding to the various reflex neuroses resulting from occular disturbances, especially in those of a neurotic disposition, he lays down the following thesis, which he stoutly maintains: Difficulties attending the functions of accommodating and of adjusting the eyes in the act of vision, or irritations arising from the nerves involved in these processes, are among the

most prolific sources of nervous disturbances, and more frequently than other conditions constitute a neuropathic tendency (p. 21). Thus neuralgia from astigmatism, from myopia, or from muscular insufficiency, are the best known forms of such disturbance; other disturbances to which he pays particular attention are cephalalgia, migraine, neurasthenia, chorea, epilepsy, insanity. These are by no means necessary to be remedied by section of muscles, but by adaptation of proper glasses, or correction of certain other conditions. A great deal of interesting and valuable material is presented in proof of the claims made, and the work is thereby made of equal importance to neurologists and to occulists. In a supplement of seventy pages is given a resumé of the knowledge of anomalies of refraction and accommodation essential to the treatment of the nervous diseases treated of in the first part of the work. This portion differs little from the chapter devoted to the same subject in the text-books on ophthalmology, though the subject-matter is more clearly presented than in many of them. It is fortunate for the profession that Dr. Stevens has done his views full justice in a work to which all can have access, for they certainly deserve careful attention.

Lessons in Gynecology. By Wm. Goodell, A. M., M. D., Professor of Clinical Gynecology in the University of Pennsylvania, etc. 3d Edition. D. G. Brinton: Philadelphia. 1887.

"Goodell's Lessons" has been so long out of print that to the younger generation it is nearly unknown. Even old friends would scarcely recognize the present edition, so thoroughly has it been revised and enlarged, six new lessons having been added. The book was a good one originally, but this edition is better because Dr. Goodell has embodied in it the results of a riper experience and a more matured judgment. The style is easy and flowing, making study of the lessons a pleasure and not a task. The book does not pretend to be a systematic text-book of gynecology, but is rather a collection of lectures largely clinical, and includes all the common diseases likely to be met with by the general practitioner. There are thirty nine articles or lessons, each complete in itself. Anyone who has to do with the diseases peculiar to females will find so much solid valuable information in this book that he cannot afford to do without it. We cordially recommend it. M.

A Complete Handbook of Treatment. By William Aitken, M. D. (Edin.), F. R. S. Edited, with notes and additions, by A. D. Rockwell, A. M., M. D. New York: E. B. Treat.

No work of this kind can be complete, for the reason that few diseases are so unvarying in course as to permit of sharply drawn lines of treatment. A large proportion of cases are not typical, and must be studied and treated as much with relation to the patient as with relation to his affection. When a line of treatment for a given disease is prescribed, it at once becomes, in a certain sense, specific medication; and here is the objection to a work on the practice rather than on the principles of therapeutics. However, this book is more satisfying than most of its kind, because it is the reflection of a really great work, Aitken's Science and Practice of Medicine; besides which it is reinforced by additions from numerous other well-known authorities. The work of editing and compiling has been well performed by Dr. Rockwell.

Differential Diagnosis of Diseases of the Skin. By Condict W. Cutler, M. S., M. D. 12mo. Pp. 139. New York: G. P. Putnam's Sons. 1887. Buffalo: Peter Paul & Bro.

As a basis for subsequent tabular presentation the writer of this little work adopts Hebra's classification of skin diseases. A few pages on general matters of diagnosis are then succeeded by over a hundred pages in which are presented, in parallel columns, the main features by which the different skin lesions are to be distinguished among themselves, as well as from those external appearances which are simply signs of systemic disturbance. In this way the exanthems are fully treated as well as erysipelas, etc. The little book is given a pleasing form, and should prove a very valuable assistant in diagnosing a large and obscure class of ailments.

BOOKS RECEIVED.

From P. Blakiston, Son & Co., Philadelphia, through Peter Paul & Bro.:
Diseases of Women: W. H. Byford.

From Lea Bros. & Co., Philadelphia:
The Rectum and Anus: C. B. Ball.

From Wm. Wood & Co., New York, through J. H. Matteson:
Index of Materia Medica: May and Mason,
Practical Microscopy: Maurice N. Miller.

From E. B. Treat, New York:
Medical Jurisprudence: A. McL. Hamilton.

An Alvine Motor.—Various are the means resorted to for the relief of chronic constipation, but unfortunately most of them are, in a sense, futile, since the effect is but temporary. Dr. George W. Hoagland, of Columbus, Ohio, writes that he uses "Elixir Purgans" (Lilly) with the very greatest satisfaction, and cordially recommends it to other practitioners. This preparation is used extensively in Carney Hospital and the Lying-in Hospital, in this city; the Children's Hospital, New York; the New York Ophthalmic Hospital, and others, while it is held in high esteem by a large number of physicians. Dr. G. A. Jordan, of Worcester, Mass., says it is certainly the best "*alvine motor*" he has ever used, and that it gives satisfaction in every instance.—*Massachusetts Medical Journal.*

Antiseptic Treatment of Intestinal Affections.—In an article on Intestinal Antiseptics, by D. N. Kinsman, M. D., appearing in the *Journal of the American Medical Association*, July 3, 1886, the author points out that the natural processes of fermentation and putrefaction going on in normal digestion are so changed in dyspepsia and other forms of intestinal disease as to produce poisonous alkaloids, which are the cause of the symptoms developed in such disorders. The researches of Professor Vaughn, of the University of Michigan, in which tyrotoxicon has been shown to be the cause of ice cream poisoning, which are still fresh in the minds of medical readers, have thrown still more light on the etiology of intestinal affections, and made apparent the importance of intestinal antisepsis as a method of treatment. To facilitate such treatment we learn that Parke, Davis & Co. have recently added to their list an intestinal antiseptic pill, the formula of which is as follows: Mercury protiodide, 1-8 gr.; podophyllin, 1-16 gr.; aloin, 1-16 gr.; ext. nux vomica, 1-16 gr.; ext. henbane, 1-16 gr.

WANTS, EXCHANGES, &c.

Wanted.—A copy of Barwell on Diseases of the Joints. Address the Editor.

To Exchange.—Part II., medical volume of The Medical and Surgical History of the War of the Rebellion, for either Part I. or III. medical volume, or Part II. surgical volume of the same work. Clarence King, M. D., Machias, N. Y.

To Exchange.—For other microscopic preparations. Mountings of nearly all the pathogenic bacteria. Also, cultivations of same in gelatine or agar-agar, for sale or exchange. Address the Editor.

The Medical Press
of Western New York.

Vol. III. FEBRUARY, 1888. No. 2.

REMOVAL OF THE THYROID GLAND—REPORT OF A CASE.

By W. C. Phelps, M. D.
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[Read before the Buffalo Medical and Surgical Association.]

In November, 1883, Mrs. Ott, a resident of this city, came to my office with a note from her physician, Dr. L. P. Dayton, requesting me to examine an enlarged thyroid gland with a view to its extirpation. I found her in other respects to be in a normal state of health; her age twetnty-five years, married. She was the mother of three living children, and had had a miscarriage the previous year at the third month of pregnancy.

The growth was as large as a large orange, and appeared to involve principally the isthmus of the gland. There was also considerable enlargement of the two lateral bodies, its right being the largest. I noticed also that the enlargement of the middle body extended well down the neck into the fossa which exists between the origins of the sterno-cleido-mastoid muscles.

There was considerable dyspnœa when in the upright position, but this was increased so greatly when recumbent that she was unable to take that position. Her voice was much affected; talking was difficult and exhausting, because of the exertion necessary. Her pulse and temperature were normal; the mass was quite hard on pressing it between the fingers, and but little movable. The opinion given as the result of my examination was, that hers was as favorable a case for an attempt at removal as one would meet, but because of the great danger attending the operation at best, my advice would be to continue for a while the use of iodine internally and externally, and wait with the hope that it would be absorbed, or at least remain stationary. She informed me that Dr. Tremaine advised the same course, after a careful examination, and she would follow our advice; she considered that the growth was traumatic in

its origin, following an injury received in that locality, about four years before, and also stated that it increased in size during her pregnancies.

I did not see the case again till the following January, 1884, when she informed me that Dr. Dayton had advised her to have the growth removed on account of the increased size and the fear of suffocation which she experienced; that she coincided with the doctor's opinion, and was determined to have the operation, regardless of all risks.

Supported by the judgment of so experienced and able a medical man as I knew her physician to be, I considered and appointed the operation for the seventh of the month, the following day, kindly assisted by Drs. Dayton, Tremaine and Waldurff, with Dr. Pattison in charge of the anæsthetic.

I began the operation by an incision from the prominence of the thyroid cartilages to the sternum, dividing the skin and superficial fascia. The other incisions in the process of exposing the gland were made carefully on a grooved director, for I wished to avoid wounding its fascial sheath at this stage of the operation, and also the large veins found in these cases. As the gland was freed from its coverings, an act of coughing by the patient forced the tumor up into the wound, and in an experimental way we attempted to replace it in its original position but found the pressure necessary to accomplish it entirely closed the trachea; the opening was heart-shaped with the open end downward.

The respiration of the patient was now quite free; the inferior thyroid arteries were next searched for, and felt pulsating strongly on the posterior surface close to the upper border of the gland. They were secured separately by two strong braided silk ligatures, with one end cut short in the old-fashioned way. I was too much afraid of hæmorrhage to take any chances by ligating the vessels in any other manner.

The superior thyroids were next searched for and found at the upper angles of the tumor, coursing along some distance on its upper surface before passing to their distribution in its substance. I was not able to apply the ligature on the right side to the vessel above, but included a small portion of the gland, for the reason that it

retreated upward beyond the hyoid bone, and I did not care to dissect much in this locality. The sheath was now opened and found to be near one-fourth of an inch in thickness, and resembled erectile tissue in its structure, being a mass of large blood channels, coursing in every direction. This structure of the sheath sufficiently explains the fearful hemorrhage which occurs when it is opened, before the arteries supplying it are controlled. The thyroid tissue was now enucleated and the sheath cut away cleanly with the scissors; the wound was closed with the ends of the four ligatures placed at its, the lower, angle. The amount of blood lost did not exceed one ounce in quantity, and the operation, therefore, was practically a bloodless one.

The wound healed by adhesion and the suppuration along the track of the ligatures was never profuse; they came away the fourteenth day, excepting the one enclosing the gland tissues which was retained nearly four weeks. There was some surgical fever for the first three days, the temperature reaching 104° F.: this quickly subsided under the use of quinine and aconite. Swallowing was almost impossible during this same time, and there was also a copious secretion of mucus from the trachea and bronchial tubes, which distressed the patient greatly. I learned at this time that the night before the operation the patient had exposed herself in the most violent storm of the winter, in search for a nurse to replace one who had disappointed her by failing to keep her engagement, and had contracted an acute bronchitis. The fever I think was in part due to this complication.

An examination of the tumor after removal showed that it was a multilocular cystic goitre, which is the form of degeneration found in the majority of cases operated upon which I find reported. I visited the patient on Sunday last and found her in good health caring for a child six months old which she has borne since the operation. There is a marked depression at the former site of the tumor.

With your permission I wish to briefly call your attention to the important points in the technique of the operation, and the general condition which sometimes follows it. The operation has been made many times in Switzerland by Reverdin, of Geneva, also in Germany and France; but until very lately it has not been looked

on with favor by English-speaking surgeons. I quote a few opinions on this subject as I have found them published.

From the eighth edition of Gross' Surgery, which work, with the majority of Americans, I have regarded as the best in our language, I quote as follows regarding the propriety of attempting extirpation of a thyroid gland when in a state of enlargement. He says: "If a surgeon should be so adventurous or foolhardy as to undertake the enterprise I shall not envy him his feelings while engaged in it, or after he has completed it, should he be so fortunate as to do this; every step he takes will be environed with difficulty, every stroke of his knife will be followed by a torrent of blood, and lucky will it be for him if his victim live long enough to enable him to finish his horrid butchery. Should the patient survive the immedate effects of the operation, if thus it may be called, death will almost be certain to overtake him from secondary hemorrhage, or from inflammation of the carotid vessels, œsophagus and respiratory organs. When the tumor is large the wound is of frightful extent. No honest and sensible surgeon, it seems to me, would ever engage in it."

Mr. T. Holmes, the editor of "Holmes' System of Surgery," in reporting a fatal case in the *American Journal of Medical Science* for January, 1873, says: "On this head (the propriety of the operation) I had little personal experience to guide me. Cases are related, indeed, by Mr. Holmes-Coote, and by Mr. South, in which such operations have been performed by Hedenus, Green (of St. Thomas Hospital) and others; but both these authors dismiss the subject; Coote with the remark that 'these proceedings are scarcely considered admissible in modern surgery', while South contents himself with translating Chelius' opinion that 'the extirpation of the bronchocele is to be decidedly rejected as dangerous, and almost entirely to be forbidden.' Green's paper has not fallen under my notice."

The paper of Dr. Green referred to was published in the same journal for January, 1871, and was a report of three cases, all successful, for one of which he came from his home in Portland, Maine, to our neighboring city, Lockport, N. Y., to operate. He concludes his paper as follows: "I cannot refrain from one word of warning to my younger brethren whose ambition may make their fingers

tingle, lest they should in the light of their successful cases be too easily tempted to interfere with these growths. It is and always will be exceedingly rare that any such intemperance is warrantable, *never*, for relief of deformity or discomfort; *only* to save life. And if it is beyond all question determined, in any given case, that such an operation gives the only chance for snatching a fellow-being from an untimely grave, be it remembered that accurate anatomical knowledge and a perfect self-control under the most trying ordeals through which a surgeon can pass, are indispensable to its best performance."

In this paper, which I remember attracted great attention at the time both in this country and in England, Professor Green summarizes his method of operating as follows:

1. Exposure of the tumor by an incision of ample length, avoiding most sedulously any wounding of the tumor or its fascia propria.

2. Division of the propria upon the director.

3. Its reflection and the enucleation of the tumor with fingers and the handle of the scalpel, paying no attention to hemorrhage, however profuse, but going as rapidly as possible to the base of the gland and compressing the thyroid arteries. The fourth and fifth directions as given by Dr. Green I will omit, and my object in quoting those that I have, is to call your attention to the error, which may, as I believe, be very appropriately demonstrated a fatal one, contained in the second and third steps above referred to. I fortunately found in the journal that I have already twice mentioned, for January, 1876, at page 280, an article taken from the *British Medical Journal* of September 25, 1875, by Dr. Patrick Heron Watson, which was a report of six cases of excision of the thyroid gland with but one fatal result, and that was due to an accidental wound of the trachea through which an amount of blood was taken into the air passage. His description of the steps of the operation is the same as that I have quoted from Professor Green until the fascia propria is reached which, he says, is only a prolongation of the sheath of the thyroid vessels; then he makes mediate ligation of the thyroid vessels in the manner which I have described in this paper, and having secured the vessels incises the cellular capsule of the gland.

Dr. Watson considers his method as an original one, and his claim is not disputed by the editor of the *American Journal*, who

calls attention to this point whereon he differs in his method from Dr. Green and all others.

In the last edition of "Bryant's System of Surgery" the method of Dr. Watson is adopted in describing the operation, and also in "Holmes' System of Surgery"; and it really seems of so much importance to patients as well as to surgeons that it may well be considered a decided advance in surgical methods.

There is another result of the removal of the thyroid gland, to which I will only refer, and that is the effect on the economy which the removal of this gland has produced. I refer to what Charcot calls myxœdema or pachydermatic cachexia, or cretinism; this condition is described as follows: the subjects steadily lose their mental vigor, the features become heavy, the speech slow and dull; the muscular system weakened and the skin turns rough, thick and hard.

This result is said to be due, according to Liebermeister, to the loss of the regulating power of the organ over the encephalic circulation, and that its abstraction throws this into chronic disorder. Professor Bruns believes that the thyroid is either a depuratory gland which excretes certain substances poisonous to the nervous system, or that it fabricates certain substances indispensable to nervous vigor.

This condition is further said to be avoided by leaving a portion of the gland, however small. My patient has thus far shown nothing of the symptoms of myxœdema, and perhaps it is due to the fact that I was obliged to leave a small part of it, as I have described to you.

A MAN afflicted with deafness took a prescription to a Topeka druggist, who filled it with care and in the latest style. The deaf man asked the price, when the following talk occurred: Druggist (leaning on the counter and smiling in a wont-you-pay-up sort of a manner): "The price is seventy-five cents." Deaf customer: "Five cents? Here it is." Druggist (in a louder voice): "Seventy-five cents, please." Deaf customer: "Well, there's your five cents." Druggist (in a very loud voice and very firm manner): "I said seventy-five cents." Deaf customer (getting angry): "Well, what more do you want? I just gave you your five cents." Druggist (sotto voce): "Well, go to thunder with your medicine; I made three cents anyway."

ON THE LOCAL TREATMENT OF THE BLADDER.

By Prof. Robert Ultzmann.

TRANSLATED WITH PERMISSION OF THE AUTHOR BY JOHN PARMENTER, M. D.

The best results in the treatment of chronic diseases of the bladder we attain by their local treatment. This last enjoys to day, therefore, great preference and a wide range of application, and in fact justly, for with no other method are we able to cure so rapidly and surely as with this. The medicated injections into the bladder are, however, carried out in such various ways and with such a variety of instruments that it is worth our while to examine critically the separate methods of the so-called "washing of the bladder," for the purpose of showing the best and most effectual in each particular case.

Local treatment of the bladder should be applied in chronic diseases only. The acute processes not infrequently heal through a suitable dietetic and medicinal treatment in a short time, and not rarely completely,—quite different is it in chronic diseases. Here the process usually does not heal because mechanical obstructions to urination in connection with abnormal admixture of the urine favor the continuance of the disease, and because, so long as these conditions persist, improvement or cure of this state can only be accomplished by mechanical and chemical remedies, *i. e.*, by local treatment.

In most cases the removal of the chronic bladder-catarrh depends upon removal of a chronic inflammatory condition. According to whether we meet this condition in young or old individuals or according to the etiological factor we must also in every case direct our local treatment.

In dealing with younger persons, who, in consequence of gonorrhœal processes, are troubled with chronic bladder-catarrh, the bladder-neck or posterior urethra must, each time, be included in the local treatment. A local treatment of the interior of the bladder alone seldom fulfills its object; for, being a gonorrhœal process ascending out of the urethra, the bladder-catarrh in these cases forms only a continuation of the posterior urethritis. This occurs proportionally easier, as the partition between the posterior urethra and

the bladder, the sphincter internus, composed of condensed organic muscular fibres, represents so weak a muscle, that usually the entire inflammatory processes can pass from the posterior urethra and the prostate into the bladder without hindrance. Now as disease of the posterior urethra, bladder-neck, or prostate is in conjunction with the gonorrhœal disease of the bladder, the chief seat of the disease in most cases being in the posterior urethra and the bladder affection being only an extension of this urethral process, we can understand that in this form of chronic vesical catarrh we must always include the posterior urethra in the local therapy if we wish to obtain a result in such cases. If we conduct the washing out of the bladder in the following manner and pass the catheter into the interior of the bladder, the catheter tampons the neck completely. We wash out the interior thoroughly, but the neck, the actual, the primary seat of disease, does not receive the smallest quantity of the fluid injected.

In these cases the best method of procedure is the following: The patient lies with elevated pelvis horizontally extended. We place a pus-basin or any vessel between the thighs and introduce a thin catheter coudé (preferably No. 7 English—25 cm. long—and with a short rubber tube attached to the end) into the bladder. If the patient has just emptied his bladder and if the latter be sufficient, only a few drops come out. If, however, the bladder be insufficient, then an amount of urine corresponding to the insufficiency will flow from the catheter. When the bladder has been completely emptied in this way we draw the catheter out into the neck. This we have accomplished when after completely evacuating the bladder we withdraw the catheter about three cm. We now inject the medicament, luke-warm, and, in quantity, from 200 to 300 grammes, with a hand (piston) syringe holding 100 to 150 grammes, slowly through the neck into the bladder. A sure sign that the eye of the catheter is in the right place, *i. e.*, in the neck, is that we can easily inject the fluid into the bladder, but that after removing the syringe from the catheter not a drop will flow out. The weak sphincter internus affords no obstruction to fluids directed *towards* the bladder, but the posterior wall of the urethra forms a valve with the eye of the catheter which prevents the *outward* flow of the fluid. When we have

completed the injection in this way we remove the catheter and allow the patient to arise and empty the bladder voluntarily. Thus the entire injection again flows through the neck of the bladder and the urethra, and the neck once more, and, indeed in the opposite direction, from the bladder towards the urethra, is exposed to the injection and cleaned.

If there be present a so-called wide bulbus and we cannot pass through the isthmus with an elastic catheter coudé we may use with advantage a short metal irrigation-catheter for the neck of the bladder (Prof. Ultzmann's invention).

Soft catheters of vulcanized rubber are not suitable for these irrigations. During the irrigation they are usually pushed out of the urethra through the counter-pressure of the injection fluid while distending the neck of the bladder.

If the bladder be at the same time insufficient and there flows out, after voluntary urination, a large quantity of urine on pushing the catheter into the bladder, it is advantageous, as the instrument has been previously withdrawn from the bladder to favor irrigation of the neck, to push this back again after finishing the injection, in order that the bladder, which is not in a condition to empty itself unaided, may become completely freed of the injection fluid. On this account in insufficient bladders it is better to conduct the whole procedure in the upright position (standing). Thus, the urine and irrigation fluid flow out more rapidly and completely. Young individuals show for the most part sufficient bladders, still, when repeated attacks of urine retention have preceded the vesical catarrh, we find also, not infrequently, insufficient bladders in young and powerful men.

If, in these cases, we do not empty the bladder of the injection fluid, it often causes great pain and annoying tenesmus, even if no further injury to the bladder results.

In tubercular catarrh of the bladder and its neck, likewise in every catarrh developing in young individuals (*i. e.*, without preceding gonorrhœa) local therapy, if otherwise not contraindicated, is ordinarily followed by no result.

If the location of the disease is in the bladder itself, and if we can exclude a simultaneous affection of the neck, the local treatment

of the interior of the bladder alone is sufficient. We have to deal here chiefly with old persons who are troubled with a chronic bladder catarrh in consequence of hypertrophy of the prostate and excentric hypertrophy of the bladder, or with such as suffer from paresis or insufficiency of the latter in a high degree. In these cases irrigation is usually carried out by passing a catheter into the bladder and washing it out until the medicament or the water used for irrigation comes out unaltered. It is best and least irritating to do the washing with a soft elastic catheter and a hand-syringe. We proceed in the following way: If the patient is strong we do the irrigation in the erect position. When standing the bladder empties itself completely and we are able to remove the sediments of the urine, *i. e.*, the catarrhal secretion, much more radically than is possible in the supine posture. If the person is sick or weak we can irrigate either in a sitting position, for instance, in an easy chair, or if he is bedridden, in the bed itself. In an easy chair the patient should sit half reclining. A vessel is pushed so far on the edge of the seat that the whole perineum is free. Between the limbs we put another vessel to catch the fluids. When sitting, the urine flows off just as completely as in the standing position, and we can empty and irrigate the bladder very completely. When the patient is in bed we should raise the pelvis with a pillow pushed under him and put an oval vessel, for instance, a pus-basin, or a small oval wash-basin between the thighs. In the horizontal position we certainly cannot empty and clean the bladder easily and thoroughly. In paretic and insufficient bladders the urine does not flow off completely through the catheter. In such cases the bladder is a flabby sack and we must try by pressure with the palm of the hand over the hypogastrium to assist the emptying which, in spite of this, not infrequently occurs incompletely. For the same reason the cleansing of the bladder in the horizontal position is mostly insufficient.

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The standing position, therefore, is for the emptying and cleaning of the bladder the most advantageous and, when practical, is preferable to any other.

For the local treatment it is best to make use of either a soft catheter of vulcanized caoutchouc (Jacques' patent, Nos. 8, 9 and 10) or of an elastic catheter (an ordinary English catheter, or still better

a catheter coudé Nos. 8, 9 and 10), and of a good hand-syringe which holds about 300 c. c.

In very sensitive persons, and, in fact, in all in whom there is no obstruction to the introduction of a soft catheter, we should use a catheter of vulcanized rubber or one of soft silk. When the catheterization with a soft instrument cannot or can only with difficulty be performed, for instance, in hypertrophy of the prostate or hard cicatricial prostates following inflammation, the best is the catheter coudé of Mercier, which can usually be passed into the bladder with ease. Metal catheters are but little suited to the washing out of the bladder because the patient must lie down. Catheterization with metal instruments is, also, usually attended with greater traumatism of the urethra and bladder than introduction of soft and elastic instruments.

Irrigation with a recurrent catheter as was formerly very popular, is not recommendable. We cannot get the bladder clean without skill. We usually represent to ourselves that with the recurrent catheter the bladder is subjected to a continuous irrigation, and that, consequently, the last remnant of detritus or catarrhal secretion is flooded from the bladder. This, however, is entirely wrong. With this instrument we wash an entirely contracted bladder, one which has grasped completely the vesical end of the metal catheter. If now we allow the fluid to pass from an irrigator through it into the bladder, this certainly does not take the trouble to dilate the same and thus free it from its catarrhal secretion, but it takes the shortest way to flow out again. As the two eyes in the vesical portion of the catheter are close together the fluid really flows directly from the one into the other without molesting much the bladder walls.

Bladders which have been cleaned in this way usually contain still a large quantity of catarrhal secretion directly after the irrigation, which we can easily demonstrate by a simple washing out with an elastic catheter and a hand-syringe. Only by occasionally occluding the end of the catheter with the finger and thus allowing the bladder to distend, is it possible to clean the bladder with a recurrent catheter.

The application of the irrigator for the cleaning and medicinal treatment of the bladder is, also, not especially recommendable.

A small hand irrigator, holding about 300 c. c., is used and held sometimes with the hand elevated and sometimes placed on the floor, in order to facilitate the flowing out from the bladder, and thus this organ is washed, if the procedure is often repeated, with an unclean solution, rendered further unclean by the sediments of the urine. If we take, on the contrary, a large irrigator, such as is ordinarily fastened to the wall, then too much fluid flows into the bladder and distends it too strongly, a thing which can never easily happen with a hand-syringe. This fact is to be considered, especially in paresis and insufficiency of this organ. Through the use of the irrigator such bladders become still more insufficient, while, by the injections with the hand-syringe, they very frequently recover in part their elasticity.

Treatment by means of irrigators is to be recommended mostly in the contracted bladders of young individuals. These bladders of small capacity, as they sometimes—fortunately very rarely—develop after parenchymatous gonorrhœal cystitis, sometimes become widened and their capacity thereby increased through the constant pressure which the fluid of the irrigator exercises upon the sides of the bladder.

However, in other cases, we cannot make it thoroughly clean with the irrigator as with the piston syringe. Especially, if heavy crystalline sediments—as, for instance, triple-phosphate—and, at the same time, diverticula are present, we are never able to free the often deep inter-trabecular spaces of the sediments with this form of syringe. The crystalline sediments become scarcely dislodged from the depressions of the hypertrophied trabeculæ. Here either a hand-syringe must be used or a pump-apparatus, as is used in lithotripsy.

With the irrigator a large quantity of fluid flows quietly into the bladder, and if the sediments have been stirred up at first, they have, on the other hand, still further time during the continued influx of the fluid, to deposit, as is easily observed, especially with specifically heavy sediments.

With the hand-syringe, on the contrary, we can directly control the quantity of fluid flowing into the bladder and also the pressure which it exercises upon the vesical walls. We can on very sensitive

bladders make the influx very slowly and delicately; in less sensitive ones and with heavy sediments the fluid through pressure from the piston flows in with the desirable amount of force, a result which is difficult to effect with the irrigator only.

On this account it is preferable to inject the bladder with an elastic catheter and a hand-syringe.

For the injection the most different medicaments can find their application. Here only the most useful will be mentioned. The injections are ordinarily used with warm solutions, as cold fluids produce vesical tenesmus; only in paresis and in insensitive bladders, as also in hemorrhage, are they used cold.

We irrigate sensitive bladders with: 1. Luke-warm water; 2. Tinc. opii simplex and luke-warm water—10 drops to 100 c. c.; 3. A one-fourth per cent. cocaine solution; 4. A one-half to one per cent. resorcin solution; 5. A one-sixth to one-fourth per cent. carbolic acid solution; 6. A three per cent. boric acid solution; 7. A five per cent. Glauber's salts solution or common salt solution.

If we wish to produce an astringent effect we inject: 1. A one-half per cent. alum sol.; 2. A one-fourth to one-half per cent. zinc sulphate or sulpho-carbolate of zinc sol.; 3. A one-fifteenth to one-tenth per cent. permanganate of potash sol.; 4. A one-tenth to one-half per cent. nitrite of silver sol.

When there is strongly ammoniacal or ill-smelling urine: 1. One-tenth per cent. permanganate of potash sol.; 2. Luke-warm water to which a few drops of amyl nitrite have been added—three to five drops to one-half litre.

In phosphaturia: 1. A one-tenth per cent. hydrochloric and carbolic acid sol., equal parts; 2. Two-tenths per cent. salicylic acid sol.; 3. Two per cent. salicylate of soda sol.

In bacterial urine: 1. Corrosive sublimate sol.—one to 10,000; 2. Strong sol. of permanganate of potash.

In hæmorrhages: 1. Cold water; 2. one-tenth to one-half per cent. nitrate of silver sol.; 3. Sesqui chloride of iron—fifty to sixty drops to one-half litre of cold water.

BETTER WAIT A WHILE.—Patient: "What would you think of a warmer climate for me, doctor?" Doctor: "Great Scott! man, isn't that just what I am trying to save you from?"—*Medical Era.*

A CASE OF HYSTERECTOMY WITH PECULIAR FEATURES.

REPORTED BY MARY B. MOODY, M. D.
New Haven, Conn.

Mrs. A. L. came under my medical care in January, 1885. The usual history of bleeding fibroid was given, with some marked variations. The length of time in which the frightful hemorrhages had continued frequently to recur was remarkable;—from sixteen years of age to fifty-four. The os and vagina were in normal condition except shortening of the latter by descent of the uterus, the os being but just within the vulva and directed against the urethra. The uterine body was larger than normal but not at all lobulated. Resistance to the touch was great, giving the impression of abnormal hardness and fixation. There being no other perceptible cause for the symptoms, intra-mural fibroid was diagnosed. An operation was suggested for relief, and all its dangers and risks were clearly pointed out.

A year from this time a most serious hæmorrhage occurred, very nearly resulting fatally. The interval had been burdened like the preceding years by constant, copious, watery discharges and almost daily losses of blood with inability for any exertion but the very gentlest. Only little of that could be taken without so much increasing the hemorrhages as to make quiet seem the greater safety. Sleep was disturbed and never nearly up to the normal requirement. Nervous irritability was great on this account, as well as from the incessant undue loss of fluids, constant apprehension of an actually impending danger and positive inability to exercise.

As she slowly recovered from the 1886 hæmorrhage she began seriously to consider the advisability of an operation for permanent relief. Her pulse, now habitually eighty-four with an upward tendency, had formerly been but seventy-two. Recovery seemed almost too much to hope for, but an acquaintance of hers passing safely through a similar operation for fibroma encouraged her, and she deliberately made all necessary preparations for the trial. Naturally she chose the operator who relieved her friend, Dr. E. N. Trenholme, of Montreal. She arranged the details with him and urged me to be present at the operation, also, for a few days after. The following

is Dr. Trenholme's own description of the operation and its revelation:

June 11, 1887: "Operation about 11 A. M., patient fully under ether, incision midway between umbilicus and pubis at one stroke through the adipose tissue down to the sheath of the recti muscles, dividing the sheath but not one muscular fibre. The peritoneum was reached, opening made and hand introduced, uterus found firmly bound down in the cavity of the pelvis and so strongly fixed as to seem to be adherent to the periosteum. With much effort the broad ligament was raised and tubes secured on either side. The tumor was loosened with a great deal of difficulty by conjoined pressure with one hand through the vagina and the other grasping the tumor from above. The mass was then brought into view through the abdominal incision and divided antero-posteriorly down as far as the internal os. The fibroid was thus exposed to view. It evenly and everywhere uniformly occupied the cavity of the body of the uterus. The uterine tissue was evenly applied over this mass to the depth of about one-sixteenth of an inch, except one spot at the left side of the fundus, where there was some induration and thickening of the muscular tissue itself. The tumor was firmly adherent to its bed throughout, being separated with a great deal of difficulty by the sharp scoop. The cavity of the cervical canal was found dilated and about three-fourths of an inch in diameter. The external os was of normal size. The interior of the tumor was occupied with the disintegrated tissue of the fibroid, amounting to several ounces. There were granular masses, with the slightest possible attachments, completely filling what was originally the cavity of the body of the uterus. The whole interior of the uterine cavity, including the cervical canal, was carefully curetted and cleansed. The walls of the fibroid mass itself were uniformly fully an inch and a half in thickness. The flaps formed by the division of the uterine tissue were narrowed down to about an inch and a half and united with the continued cat-gut suture. In this way a pedicle was formed without any possible communication with the uterine cavity and abdominal cavity. A drainage-tube was then passed through the cervix into the vaginal canal, the pedicle brought out at the lower part of the incision and clamped, leaving about two inches of excess

of tissue above it. This was removed by the scissors. The incision itself was closed with four deep interrupted silver sutures and some eight or ten superficial horse-hair sutures. The abdominal surface after being dusted with iodoform was dressed with ten or fifteen layers of carbolized gauze, which were kept in place by two strips of adhesive plaster ten inches in length and half an inch in width. The patient was then removed to her bed and allowed freedom of motion, the operator feeling assured that no movement causing much pain would be voluntarily persisted in, and that no vessels properly ligated, or sutures securely placed as these were, could possibly yield to endanger life. But on the contrary such gentle motions of the body relieve the excessive nervous irritability which is increased by a feeling of restraint. Seeking relief by change of posture favors the natural adjustment of the bowels which is disturbed by the operation and encourages peristaltic action and the early passage of flatus which affords such immense relief after abdominal section. At the same time it assures the operator that the bowels are pervious, which is most comforting to anxiety in this respect immediately after a severe operation involving so many possibilities for the occurrence of accident to the intestinal tissues."

Running comments kindly sent me by the operator at my request from day to day were as follows: but first let me say that June 12th and 13th no unfavorable symptoms appeared; no opiate was given, but a good deal of positive suffering was endured. Small pieces of ice in the mouth were allowed freely, and, after a few hours, light nutrition, milk, etc.

"*14th.*—You will be pleased to hear of the good condition of your patient. This A. M. at 7 o'clock, temperature $99\frac{4}{10}$, pulse 100, and all looking well for the future; no distress and sweating ceased.

"*15th.*—Mrs. ——— goes on steadily and satisfactorily. I trust the end will be perfectly successful and happy. Temperature and pulse are as last reported. Not a drop of matter around pedicle.

"*16th.*—I am glad to report uninterrupted good progress of your patient. Temperature and pulse keep about the same, 100° and 101°, varying a little from morning to evening. She looks well and pulse easier. Bowels moved this A. M.; bladder not quite so

troublesome; no pus at wound, which is healed from end to end, save pedicle. I believe she will get well.

"*17th.*—Your patient still goes on well. Pulse 98, temperature $99\frac{5}{10}^{\circ}$ this evening. She looks better and rests better. Pedicle is nearly separated, discharge very slight, bowels acting well. In short, there are no unfavorable indications.

"*20th.*—Patient restless but still much as usual. Pulse 100, temperature $100\frac{2}{10}^{\circ}$. There is little appetite. Could you advise as to this? The discharge from pedicle is not great, but still it taxes her strength. Took out two stiches from the upper part which is perfectly united. I think matters are as favorable as could be expected considering her condition and nature of operation."

21st.—No report.

22d.—Telegram announcing her death.

Great prostration and restlessness were its precursors. For a few hours at the last she was comatose. The autopsy showed union of pedicle complete, but a couple of drachms of grumous pus in the walls of the abdomen. At no time were there any signs of inflammation.

The equal development of the tumor and its location in the cavity of the uterus absolutely without any pedicle except the natural supports of that organ and the wonderful endurance, vitality and patience exhibited for so many years, are all points of uncommon interest.

DYSTOCIA FROM SHORT UMBILICAL CORD.

BY L. H. KETCHEL, M. D.
Corfu, N. Y.

January 3rd I was called to attend Mrs. J. C., in labor—a primapara, aged thirty-five years. Real labor began at about 12 o'clock, A. M. At 4 o'clock the dilatation and pains were such that I began to administer chloroform, which was continued throughout. Presentation, occiput left anterior; head advanced slowly until the floor of pelvis was reached, when, the coccyx presenting firm rigidity, it was forcibly bent backward; perhaps broken. The head was large, and progressed slowly. When the perineum began to be distended I noticed that there was an unusual retraction of head, after each

pain—*much* greater than usual in a natural labor. The head would retract much further than the usual relaxation and resiliency would cause it to do. I expected to have to use forceps, but, all things considered, I determined to wait a little longer on nature.

After quite a contest between the expulsive and retractive forces, the occiput protruded. In an interval of pain, introducing my hand, I felt an œdematous, sodden condition of face, and anticipated some constriction. Forcibly retracting the occiput, and pushing back the anterior commissure, I found the cord around the neck, and so tightly that it was utterly impossible to even loosen it in the slighest degree, or even lift it free from the neck. Carefully passing in two fingers, using one to separate cord from neck, as much as was possible, and the other to guide scissors, I cut the cord *in utero*. The retractive force being removed a few strong pains delivered the head and when the child was born it was apparently dead. Its whole head, face and all, was distended with œdema. Leaving the mother in proper care, forty minutes of assiduous work, with finally catheterizing the trachea, established a feeble respiration.

It is by no means unusual to have the cord twined about the neck once, or even twice; but to have so short a cord that it almost prevents delivery of head, with the necessity of cutting cord *in utero*, is a little unusual.

The child gradually gained in power of respiration, and began to have a feeble cry. Its urinary secretion was *nil*, owing to sluggish circulation, for thirty-six hours; but, as the circulation grew stronger it became established, and now mother and child are doing well. The points I wish to notice are, the unusual shortness of cord, and the necessity of cutting it *in utero*—as soon as possible. It relieves the congested condition of child and hastens the labor.

ODD ORDERS AT THE COUNTER.—From a list of articles asked for at the druggist's counter, published in the *National Druggist*, we extract the following amusing specimens as fair samples of every-day experience: "Send me some of your essence to put people to sleep with when they cut their fingers off. I want something to take tobacco out of my mouth. Send me a baby's top to a nursing bottle. Something for a sore baby's eyes. Enough ipecac to throw up a girl four years old. Enough anise seed to take the twist out of a dose of senna. Something for a woman with a bad cough and cannot cough. Something, I forget the name, but it is for a swelled woman's foot. For a man with a dry spit on him. For a woman whose appetite is loose on her."

VERRIER ON PRURITUS VULVÆ CONSECUTIVE TO LEUCORRHŒA. The pruritus caused by leucorrhœa is very rebellious. According to some, after emollient lotions, a weak infusion of tobacco, a decoction of lupulin, of borate of soda (3.-50.), or one of sublimate (1-1000), or one of phenic acid (1.-500.) suffices. The author employs the following solution: Acetate of morphine, 4 parts; liquid phenic acid 5 parts; dilute hydrocyanic acid, 30 parts; glycerine, 100 parts; water, 1,200 parts. After having washed the parts with the above solution, dry them and apply powdered starch. If the pruritus does not yield to this treatment, a tampon of lint saturated with the solution should be held to the parts by means of a compress and bandage. —*Rev. Méd.-Chir. des Maladies des Femmes, Sept., 1887.—Analectic.*

COLCHICUM IN RHEUMATISM.—Dr. E. S. F. Arnold writes in the *College and Clinical Record:* When the late Dr. Robert Nelson, for many years the Mott of Canada, went to California, I succeeded him in his office in New York. During his absence constant inquiries were made of me for his remedy for rheumatism. On his return I asked him what this wonderful remedy was. He smiled, then simply answered, "Colchicum." Seeing that I was incredulous, he then told me that he had once, at the Hotel Dieu, in Montreal, experimented with colchicum, trying all the officinal preparations, sometimes with benefit, but in the main finding all unreliable and often totally worthless. He ultimately tried a strong alcoholic tincture prepared from fresh seed. He found that the shell of the seed contained a volatile oil; that when water was added to the tincture it became opalescent, like tincture of myrrh, and by its use he obtained extraordinary effects. He prepared it by adding to one ounce of the seed half a pint of highest proof alcohol. After standing a fortnight and shaking once or twice daily it was fit for use. Add five drachms of this tincture to half a pint of water, or, rather, enough to make a half-pint, and of this the full dose is half an ounce. "Now," said he, "if you have a case of acute or sub-acute rheumatism, give this every four hours, night and day, avoiding acids and giving a light diet until the toxic effects of the colchicum are induced, viz., nausea or even vomiting, with active purging, which occurs generally by the time the sixteen doses are taken, and the rheumatism will disappear like a flash.

The Medical Press

OF WESTERN NEW YORK.

Published by THE MEDICAL PRESS ASSOCIATION of Western New York.

EDITED BY

ROSWELL PARK, A. M., M. D.,

WITH THE ASSISTANCE OF

MATTHEW D. MANN, A. M., M. D. — DELANCEY ROCHESTER, A. B., M. D.
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Subscription price: $2.00 per Annum.

All business communications should be addressed to DR. CHARLES G. STEELE, Business Manager. 186 West Genesee Street; all others to the Editor, 510 Delaware Avenue.

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BUFFALO, N. Y., FEBRUARY, 1888.

THE OSTEOGENETIC FUNCTION OF THE PERIOSTEUM.

The introduction of sub-periosteal methods into bone-surgery, resections, and the like, marked a distinct era in modern surgery, and was one with which the name of the late Langenbeck will ever be prominently connected. It was due to inferences drawn from the clinical fact that when periosteum was left after removal of bone there was a rapid regeneration of true osseous tissue. There can be no dispute concerning this clinical phenomenon, since it is noticed every day. Among living surgeons no one has done more to insist on this method of operating than Ollier, of Lyons, and the wisdom of it no one ever disputes. But it has remained for Macewen, of Glasgow, to point out that it is not so much the periosteum itself which reproduces bone, under these circumstances, as the osteoblasts themselves which cling to it during its removal and remain after completion of the operation.

Obviously this matter is one of the greatest practical importance, and one which has bearings in several directions. The periosteum is virtually a sheath, a protecting, limiting membrane, through which bone gets a part of its vascular supply, but its so-called osteoblastic layer belongs rather to the bone than to itself, and while found best developed in young and growing bone, it nearly disappears in the adult. Macewen has done a great service in pointing out that this osteoblastic tissue is found not only peripherally, but that it continues in an unbroken continuity all through the Haversian spaces

and canals, and may even line the medullary canal. From any portion of this new bone may be formed.

This osteoblastic tissue consists of small, round or polygonal cells. By the hyperæmia which is caused by irritation, and by the exudation which results from the inflammatory process, they appear to be forced out from the Haversian canals and under the periosteum or into the medullary cavity; or, in case of fracture, out from the ends of the bone fragments. It is by the conversion of these cell elements that new bone is formed, and it will be easily seen how these may adhere to the lower layer of the periosteum. But regeneration of bone may take place without any participation of its fibrous investment, as is often seen when it is entirely removed by accident, or by design in experimenting. On the number and activity of these cells also depends the completeness and even the possibility of repair in the adult and the aged. When in mature, healthy bone this effusion of cells takes place between bone and periosteum, the latter becomes hyperæmic, softer, swollen, and the meshes of its deeper layer infiltrated by them. Ossification then proceeds on the surface of the bone, and sometimes much more irregularly than it could if the periosteum produced it. Macewen insists upon it, then, and with the best of reason, that bone is produced and regenerated by proliferation of these osteoblasts, and that its reproduction is possible independently of medulla or periosteum.

His proof of this is very complete. Without reference here to the researches and experiments of others, take the results of his experience in bone grafting. In a case of loss of the entire shaft of the humerus, in a boy of two years, the periosteum was left, but in the course of fifteen months no new bone was reproduced though the former granulated finely. At various times small pieces of healthy living bone entirely irrespective of periosteum were grafted into the interior of the arm, and soon the utility was greatly restored. The wounds healed without pus production. Here was regeneration of bone from its own osteogenetic elements. The restoration to place and to function of the button cut by the trephine is another proof to the same effect.

Again, the periosteal covering of a portion of bone may be completely destroyed or permanently removed, yet the denuded bone

will usually not only retain its vitality but will remedy its own defect and even form for itself a new periosteum. In this case the results, as we used to consider them, are reversed.

Macewen's paper is published in *The Annals of Surgery* for October and November, 1887, and will well repay perusal. His conclusion is worth all the emphasis we can give it here: "While not under-estimating the periosteum, as a medium through which blood vessels enter bone, and as a limiting and protecting membrane, of great use in many pathological conditions, the surgeon will no longer regard it as the structure which can secrete or reproduce bone. He will not trust it to regenerate bone unless it has adherent to it sound, osseous plaques, the elements of which have the power of proliferation, since from these alone can osseous regeneration proceed. He will not discard injured osseous tissue under the belief that it must necessarily die, merely because it is divested of periosteum; but he will regard it as a tissue, possessed of great independent vitality, which, if placed in suitable media, where blood serum is plentiful, and where blood-vessels can be quickly thrown out, is capable of living and growing. With that belief, limbs, which otherwise would be sacrificed, may be saved."

CONCERNING THE THERAPEUTIC VALUE OF OZONE.

The earlier experiments with ozone have resulted in striking it from the list of therapeutic agents, since according to Houzeau it is very dangerous and, if administered pure, rapidly produces inflammation of the air passages with cough and hemoptysis; according to Thenard it causes shrinking of the blood corpuscles even in a very diluted form, and according to Liebreich it is decomposed when coming in contact with the fluids of tissues, gives off oxygen in a nascent condition, which is as irritating to the tissues as is diluted chlorine, and as a matter of fact does not enter the circulation at all. Even if it did the bubbles of oxygen given off would interfere materially with respiration. The experiments on animals made by many investigators led to the same conclusions, *i. e.*; that ozone produces rapid inflammation of the air passages, œdema of the lungs and death. But many of these investigations were made with chemically prepared ozone which possibly was contaminated, as might easily be the case.

Latterly Binz has demonstrated that the action of chlorine—which is so much like that of ozone—is exactly opposite to what has been accepted, and has undertaken to test ozone. The ozone used was prepared by electricity alone, and experiments were made on animals and human beings. When it was administered in too large quantities his results were the same as those of earlier investigators, but when given in small quantities and for a short time only, they were quite different. The effect on different classes of animals was the same in kind but different in degree. Frogs reacted least; mice, pigeons, chicks, rabbits, dogs and cats, very well. In all it produced a state of somnolence. In the rabbit there was first slight uneasiness, after fifteen or twenty minutes it sat quietly, respiration become shallow and less frequent, then it lay limp on the abdomen, the eyes sunken and half closed, the ears drooping. The depression of the brain was unmistakable. Post-mortem section showed nothing abnormal. Ozone therefore produced the somnolent condition before the air passages were sufficiently afiected to be recognized. Even under prolonged administration the pulse remained good and the beat strong. The picture was quite the same with cats, so that the depression of the nerve centers was still more marked. Only when the quantity of ozone was temporarily increased did catarrh of the air passages and difficult respiration occur. The body temperature seemed to fall considerably. The symptoms during a two hours administration were: First, uneasiness—probably due to the unusual odor—then flushing of the mouth and nostrils, profuse flow of saliva and sometimes accelerated respiratory movements. No symptoms of pain were ever observed. That the somnolent condition could be produced without the lung complications was proven by experiments on human beings, in whom sleep was produced in from six to twenty-five minutes. When the administration was stopped they awoke in from twelve to sixteen seconds, and often complained of being cold and tired for a short time after. Before sleep occurred the respirations were easy and comfortable and the transition to the somnolent condition was combined with a pleasant sense of indifference and short indistinct but pleasing dreams. Neither the pulse, the pupils, nor the color of the face seemed changed in the least at any time. Pinching the skin and calling to the person was always

responded to in a sleepy way. Only in one subject sleep could not be produced.

What seemed somnolence in the animals was actual sleep in the human being. Slight irritation of the throat with a little cough and twitching of the muscles of the middle face and forehead occurred at times but ceased with the administration. Breathing too large quantities of ozone produced gagging and violent cough with no local signs of irritation, however. The vulnerability of the lung differs in different subjects and is greater in man than in animals. Binz also believes that it may produce hemoptysis and bronchial catarrh. The conclusions he arrives at are that moderately ozonized air produces sleep, highly ozonized air has a toxic effect, while slightly ozonized air has no action whatever. He also calls attention to the analogous action of alcohol, which in diluted form has no effect, while if administered in concentrated form becomes stimulant, emetic, hypnotic, paralyzing, locally irritating, and lowers temperature. He cannot give the proportion of ozone to air which is necessary to produce sleep, but recommends finding it by experiments on animals. He found, too, that all elements possessing strong affinities, as chlorine, bromine and iodine had the same effects when set free in the brain, and that the oxygen formed from the nitrites has the same effects, and finds herein, as also in the action of nitrous oxide, a hint to the future understanding of the action of ozone on the nerve centers.

Nitrous oxide under certain circumstances gives off oxygen to oxidizable substances, becoming $N_2 + O$. Ozone (O_3) in the same way becomes $O_2 + O$, *i. e.*, ordinary inactive oxygen and one atom of nascent oxygen. This nascent O is liberated more slowly from nitrous oxide, therefore a greater quantity may accumulate in the brain without attacking the air passages. Moreover, the specific action may be of two kinds. Either the O from the ozone changes something about the blood which possibly influences the nerve centers like carbon dioxide, or the ozone is not entirely split up in the air passages so that a sufficient number of molecules still reach the brain and other parts, which Binz proved by his experiments. His experiments also modify the accepted theory that even a trace of ozone in the blood would bring about the formation of wet hæmaglobin. It is only formed when a small quantity of blood is mixed with

a great deal of ozonized air, while with a greater proportion of blood it does not occur. In this respect, too, the action of alcohol is similar. He also contradicts the statement that ozone is decomposed in the air passages, and further says that it cannot be used as an anæsthetic in surgery since its action is so unreliable and fleeting, but that it might be of value in many nervous troubles if used for a long time. This was investigated to some extent by Eyselein and Stabel. The former made accurate measurements of the ozone in air and carefully observed its effects. This is the result of his observations: That a lasting large proportion (above ten on Lender's scale) was very unfavorable in its effects; that below ten the results were generally favorable, and that a proportion between nine and four, especially if combined with considerable humidity, caused marked symptoms of disturbance.

The phenomena as regards the nervous system were these: A rapid drop produced very apparent weakening of the motor and sensory systems, causing difficulty of breathing and insufficiency in cases of asthma and heart disease. A lasting high proportion produced direct symptoms of irritation, and only the physically weak and convalescents from acute diseases seemed to do well. This possibly explains why in the latter class wonderful results are sometimes obtained in forest and mountain air and at the seashore. Slight fluctuations had no effect. Contrary to existing opinions on fine weather, Eyselein found that sunshine, favorable winds and a cloudless sky often had the most unpleasant effects on patients with nervous disease. A coming thunder-storm made some very irritable and others dull and sleepy. That sleep in general depended largely on how and in what kind of air the patient spent the day, much ozone producing restless nights. That on epidemic diseases ozone had no effect. That when the proportion of ozone was slight and there was relatively much moisture in the air, also during foggy spells with little or no ozone, gastric and catarrhal troubles of the air passages, angina, etc., increased.

If these observations were generally confirmed they might throw light on the fact that some nervous patients do well in one place and others in another. It would widen our knowledge of climatic therapeutics and we would know exactly where to send our patients suffering with nervous troubles.

PERITYPHLITIS AND ITS TREATMENT.

A notable meeting of the Philadelphia County Medical Society occurred December 14, 1887. The entire session was devoted to the discussion of pericæcal inflammation, its morbid anatomy, diagnosis and treatment. Dr. Musser's opening address on "The Morbid Anatomy of Pericæcal Inflammation" evinced thorough mastery with the subject. Much confusion exists, according to Dr. Musser, relative to the nomenclature of this affection. He would restrict the term *typhlitis* to inflammation of the cæcum, *peri*-typhlitis to inflammation of the peritoneal covering of the cæcum, and *para*typhilitis to inflammation of the connective tissue behind the cæcum. With typhlitis he would not include inflammation of the appendix, but to this trouble would apply (with Dr. Fitz) the name *appendicitis*. Typhlitis *per se* is not so common as we would suppose from the prevalent use of this term as generally accepted. Here the name appendicitis would more properly apply. Assuming, therefore, that the true condition most often obtaining in inflammation commonly termed typhlitis to be appendicitis it becomes a matter of importance to gather an idea of the usual position of the appendix. This has been found to be exceedingly variable and to a certain extent this variability explains the numerous methods of exit for pus, which through adhesive inflammation occur—as into other sections of the bowel, pelvis, tubes, bladder, etc. The foreign bodies so often found in the appendix can properly be adduced as the cause of the secondary symptoms. The speaker dwelt on the care that should be exercised in conducting an autopsy on such cases for often, unless the greatest care is used, we are baffled in finding the perforation if one exist. Inflammation of the appendix he divides into simple catarrhal and ulcerative, though the first may pass into the second. In the event of abscess formation its situation is usually one of three; in the pelvis, behind the cæcum, or in the right iliac fossa just above Poupart's ligament, a few drops of pus or a pint may be present. "The appendix is always found in the abscess and has undergone changes varying in degree with the duration and severity of the inflammation;" ulcerations are found, sometimes a portion may have sloughed off entirely, and present as a necrosed mass, or by dissolution may have disappeared entirely. The amount

of perforation also differs widely, in some cases being large enough to admit a finger, again hardly giving entrance to a probe, while in still others scarcely to be detected. When perforation occurs, it does so, as a rule, within one to one and one-half inches from the colon, whatever be the length of the appendix. Those cases not fatal terminate by resolution; pus becoming encysted or rupturing into a neighboring organ, the bladder being a favorite seat. Therefore, as a hurried resumé we may say, to quote Dr. Musser, "That pericæcal inflammation is due to inflammation, ulceration and rupture of the appendix vermiformis, with secondary formation of abscess; that the position of the abscess depends entirely on the position of the appendix and its danger upon its proximity to the peritoneum; that in the larger number of cases the inflammation and ulceration are due to the pressure of a foreign body occluding the canal—a retention inflammation." It may seem an unnecessary refinement of terms to differentiate between typhlitis and appendicitis; however, unless this be done and a correct idea of the pathology gathered, these cases will be treated as simple typhlitis; whereas, in ninety per cent. they are cases of inflammation of the appendix.

"Diagnosis of Pericæcal Inflammation." Under this head, Dr. William Pepper followed with an able address. He was willing to accept Dr. Musser's suggestion but he did not think the term paratyphlitis would gain general usage. We must recognize the fact that the appendix is often diseased when we have no reason to suspect such a condition. Dr. Pepper's experience leads him to believe, however, that independent cæcal disease is more common than the last speaker's (Dr. Musser) remarks would lead us to think. In typhlitis, perityphlitis and paratyphlitis there always occurs more or less accompanying appendicitis, though it may often be in a mild degree only, and cause but a small proportion of the symptoms. Dr. Pepper thought that we ought to bear in mind that there are two classes of cases—in the first the inflammation is more limited to the walls of the cæcum and pericæcal tissue, while the appendix is only slightly involved. Most of these cases, if properly treated, recover. They are marked by pain. Not excruciating, not associated with collapse, often accompanied with nausea and vomiting and pyrexia. In these cases we

also find tenderness in the right iliac region, a sense of fulness and induration, dorsal decubitus and flexed thighs. The bowels may be constipated, preceded by some diarrhœa. In proportion as the induration is found early and marked, so much more are the chances that the cæcal walls are involved and the appendix escaping. These cases are usually accompanied with fæcal impaction of the cæcum. However, although they usually go on to resolution, they may continue to grow worse, and if surgical interference is not made, will perforate, cause general peritonitis and death. In the second class there is a catarrhal inflammation of the appendix with closure of its orifice, retention of fæcal matter and secretions, ulceration and perforation later. Excruciating pain ushers in the attack, so severe at times as to cause collapse and death, or there is a rapid development of the signs of general peritonitis. There may be vomiting, usually due to overloading the stomach and constipation, not so marked as in typhlitis. Such cases end fatally through exhaustion in from five to ten days. If we find fullness on the right side of the pelvic roof we are justified in only a slight amount of delay, while on the contrary as the external iliac induration and dullness appear early and persist are we allowed to delay several days. If resolution in the course of this time does not begin and the fever assume a hectic type, we are to employ exploratory puncture and incision. In conclusion, this gentleman laid particular stress on the necessiry of making often and repeated rectal or vaginal examinations, for many times by virtue of being so hidden, a perforative appendicitis gives no appreciable signs by an external examination alone, while an examination as insisted upon above will in many cases give us a characteristic fulness in the right pelvic roof preceding suppuration. With some of this last class an abundance of urine is present, associated with absence of vomiting. The pain is apt to extend to the middle abdominal line and sometimes downward into the genitals.

In his paper on "The Treatment of Perityphlitic Inflammation," Dr. T. G. Morton divided his subject into two divisions, that of the pre-purulent and of the post-purulent stage. In the former he would use rest in bed, low diet, hot poultices, local depletion and morphine hypodermically to control pain, the bowels to be kept open and free

by the use of salines and enæmata. The salines are employed to keep the intestinal contents liquid and so be better prepared to resist peritonitis if it occur, while the draining of fluid from the tissues will influence for the better the existing inflammation. Pain, he thinks, when of an intense character is often as much an indication to operate as it is to exhibit morphine. Whenever the diagnosis of pus has been made, be it never so little, he would operate, for the risks of an abdominal section are slight compared to those of rampant abdominal inflammation. "The aspirating needle must never be used, for if it does not find pus, we cannot be sure that none is present, whilst its own dangers are not inconsiderable." If Dr. Morton means the unqualified use of any sized aspirator, we can agree with him; however, if he intends to include exploratory hypodermic puncture we must differ at once. Unfortunately the doctor does not enumerate the danger spoken of, leaving us still in doubt as to his objections against its judicious employment. The abdominal section should not be median but lateral. In the first the peritoneal cavity might often needlessly be opened, while the lateral can be of less size, the abscess may be reached before entering the peritoneal sac and the cæcum, appendix, etc., are in better view and more accessible. If pus is found, evacuate, wash out its contaminating cavity and drain. Examine appendix carefully. It is good practice to excise the appendix in nearly all cases, for thereafter it can cause no more trouble. Cœcal perforations may be closed by Lembert sutures. Should the general peritoneal cavity be involved, it is to be thoroughly washed with hot water or 1-10,000 bichloride solution, and cleansed with sponges. A glass drainage tube must be inserted into the pelvic cavity in such cases. Post-operative treatment calls for care in keeping drainage tube clean, maintaining bowels in a fluid condition and meeting the threatened peritonitis by active purgation.

In the subsequent discussion Dr. W. W. Reed also expressed surprise to hear Dr. Morton condemn the use of the aspirator. He believed that Dr. Pepper's view on repeated rectal or vaginal examination was of great importance. In perforative cases he would employ the median operation. Dr. Hunt thought that salines were to be used very guardedly, if at all, until a wider experience gave us a firmer

decision, while the older treatment of opium ought to be continued.

In Dr. Osler's estimation, Dr. Pepper's remarks on the frequency of cæcal disease were correct, and the differentiation between such and those of appendicitis was important, as nearly all cases independent cæcal disease recover.

Dr. Wilson was led to think that there is a class of cases in which we find no pus, but where general peritonitis results through plastic exudate. These cases, he has found, usually end in recovery and do better without surgical interference.

MEDICAL DEPARTMENT, UNIVERSITY OF BUFFALO.

The Annual Commencement Day exercises of the Buffalo Medical College will take place Tuesday, February 28th. A programme of great interest has been prepared for the alumni and friends of the College. The morning business session of the Alumni Association will be opened with an address of welcome by Prof. Stockton. At the afternoon session papers will be read by Dr. W. C. Wey, of Elmira; Dr. W. E. Ford, of Utica; Dr. E. L. Shurley of Detroit; Dr. E. N. Brush, of Philadelphia, and Dr. J. H. Pryor will read a memorial of the late Dr. Rochester.

The main features of the evening graduating exercises, will be an address to the graduating class by Hon. Thos. N. Bacon, of Rochester, and an address to the alumni by Rev. Dr. Chas. N. Sims, Chancellor of the Syracuse University.

Prominent among the speakers at the banquet will be Mr. W. D. Howells, Judge Albion W. Tourgeé, Hon. E. C. Sprague, Chas. E. Fitch, Esq., of the *Rochester Democrat and Chronicle*, and Dr. Simeon T. Clarke, of Lockport.

The evening exercises are to be really those common to both the Medical and the Pharmaceutical Departments of the University, the latter having well prepared an excellent class of considerable size.

Altogether the day's programme is a most interesting one, and we hope that both the alumni and the city profession as a whole will show their appreciation of it by a large attendance.

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We have great pleasure in announcing that Dr. De Lancey Rochester has joined the editorial corps of The Medical Press

OF WESTERN NEW YORK. It is the intention of its management to make the journal, if possible, even more useful to the general practitioner than ever, and in this endeavor the well-known literary and professional abilities of our new associate will tell for the benefit of our readers.

* * *

The Seventeenth Annual Report of the Buffalo State Asylum for the Insane has just appeared. The showing which it makes is most excellent in every respect. There certainly is not a better conducted institution of its kind in the world, and Dr. Andrews deserves the heartiest commendation for the earnestness with which he has worked and the brilliant success he has achieved. That he has not escaped the persecution of a few malevolent individuals appears from his report, but it has been most pleasant to see how completely his few enemies have been baffled in every effort to injure him, and how perfectly he enjoys the confidence not only of the State authorities and the managers, but of the community at large.

* * *

This journal has contained frequent references to the numerous virtues and advantages of lanolin. Fränkel some time ago claimed that it was a substance quite free from germs, even when in a crude state. Now Gottstein has been making a number of careful experiments and states that it is absolutely inimical to them, and that they cannot penetrate even a thin layer of it. In this respect it differs mostly from the common fats, which both contain bacteria, and are easily penetrated by them. We have consequently another property added to those which have already made lanolin, *par excellence*, *the* basis for ointments.

* * *

Dr. Elmer Starr, of this city, has been very successful in photographing the interior of the living human eye, and is, we believe, the first who has succeeded in this difficult feat. A full report of his methods and results has been published in the *Philadelphia Photographer* of December 3, 1887, and reprinted in separate form.

* * *

Dr. M. Pickett, of Corry, Pa., has been appointed chief surgeon of the Western Division of the Philadelphia and Erie R. R.

Dr. Edward Clark has been appointed Health Physician of Buffalo, to succeed Dr. Briggs. He will find Board of Health matters in excellent shape, and, with an able corps of sanitary inspectors and his own energy brought to bear, should be able to make an excellent showing for the ensuing year. We congratulate the doctor upon his appointment.

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BUFFALO, N. Y., January 17, 1888.

We, the undersigned committee in behalf of the I. C. I. society of the Medical Department of the University of Buffalo, offer this brief memorial, deploring the death of the late Dr. Arthur M. Barker, feeling as we do our inability to express the loss to the profession of so prominent and noble a member. Those of us who knew him personally can realize in a measure the loss his friends and the community feel. We, as a body, are proud of knowing that Dr. Barker was a charter member of this society. Not only was his influence felt in its infancy, but the keen interest he has always taken in our welfare has brought him closer to us and increased the love and respect with which his memory will be cherished. Therefore be it resolved that this slight token be entered in the minutes of the society.

E. H. TWEED,
W. S. YATES,
D. H. SHERMAN,
Committee.

Correspondence.

LONDON LETTER.

Clinical Notes made in the Hospital for Sick Children, Great Ormond Street, London.

Dear Doctor—Having been for three months clinical clerk in the Hospital for Sick Children, I send to you notes of some interesting cases which have occurred there under my observation.

This hospital, the first of the many children's hospitals in London, is the largest and best equipped in Great Britain. It has seemed to me that the establishment of children's hospitals and the complete separation of children from adult patients is advantageous, partly because the influence of children upon each other is good, and partly

because the association of children with the promiscuous and even vicious classes found in the wards of a general hospital cannot but be productive of moral danger to youthful patients of either sex.

That childhood has its characteristic diseases, such as ant. poliomyelitis, chorea, tubercular meningitis, laryngeal diphtheria, post-diphtheritic paralyses, gastro-enteric disorders, rachitis, etc., is indisputable; and as to the clinical training of the physician, is it not quite as important for him to study the cutaneous, nervous, pulmonary, gastro-enteric and systemic diseases common to children, as to receive a careful training in gynæcology and obstetrics? The value of a practical knowledge of children's diseases is fully recognized in Vienna and Berlin, as shown by their numerous children's clinics; and persevering attendance at the lectures of Widerhofer, Monti or Henoch, will amply repay the student who chooses to frequent the children's clinics, rather then the more popular clinics of Gerhardt, Nothnagel, Martin or Braun.

Great stress is laid, in the English and Continental hospitals, upon the importance of supplementing the more usual methods of examination with a knowledge of otology and opthalmoscopy; and in the Great Ormond Street Hospital the ears and eyes of each case suspected of cerebral disease were carefully examined. In this way the choroidal changes of syphilis, deposits of tubercle in the choroid, purulent inflammations of the middle ear were discovered, and gave the physician the advantage of an early diagnosis and an accurate plan of treatment.

The Children's Hospital always has a full quota of tubercular diseases of the meninges, lung, peritoneum, and joints; and it is interesting to note that among the London children measles plays a far more prominent role in exciting tubercular processes than hereditary influences.

Some years ago Dr. Barlow demonstrated the interesting clinical fact, that both in acute articular rheumatism and in chorea small subcutaneous nodules were not uncommonly found. These nodules are freely movable, vary in size from a grain of rice to a chestnut, and are found chiefly upon the scalp, in the neighborhood of joints and upon tendons and synovial bursæ. They may appear and disappear in the course of three or four weeks.

The following cases seem to show the close connection between rheumatism and chorea, and are also remarkable for the abundant crop of nodules which occurred in the course of the disease.

The patient, $7\frac{1}{2}$ years old, was under the care of Dr. Cheadle. The child had had an attack of chorea one year ago; affecting the right side. The attack was caused by a fright. In September, 1887, a second attack of chorea, slight in character, occurred. This illness was of short duration, the irregular movements disappearing in two weeks. In October, 1887, patient complains of pain in his shoulders, elbows, wrists, knees and feet, and on October 19 was seen by a physician who diagnosed a low fever. October 26 the child was somewhat better, but on October 27 the articular pains returned in all the joints except the shoulder. The child was admitted to Alice Ward November 7. Mother had had rheumatic fever. An examination disclosed besides the swollen and painful joints a crop of subcutaneous nodules remarkable for size and number. On the scalp, at the junction of the parietal and occipital bones, were several nodules of about the size of a hickory nut. A number smaller in size were found along the lumbar spine. Some in the extensor tendons of both hands. Others around the knee-joints, and a number upon the external and internal malleoli of both ankles. These nodules were not painful, were freely movable and lay directly under the skin. A faint systolic murmur was heard at the apex, which afterwards became more pronounced, and a pre-systolic murmur afterwards appeared.

In this case the articular symptoms yielded readily to the salicylates, and most of the nodules disappeared. At the end of seven weeks, however, the cardiac lesion was persistent, and the nodules upon the scalp, although diminished in size, were still present.

Near this patient lay a child with chorea. It had a rheumatic history and the severity of the attack was evident from the amount of paresis and incoördination present. In addition to the choreic symptoms on the scalp, spine, elbows, ankles, were found a quantity of subcutaneous nodules. The largest of these were upon the sacral-vertebræ, and were $\frac{3}{4}$ in. in diameter. A systolic and a pre-systolic murmur were heard at the apex of the heart. The nodules grew smaller as the child improved, but the endocardial murmurs

did not disappear with the amelier amelioration of the other symptoms.

These nodules often forebode an impending endocarditis, and should be carefully looked for in cases which present vague ill-defined, articular symptoms. The relation between rheumatism and chorea, though as yet not elucidated, is clear. Gowers is of the opinion that there exists in chorea a blood-state allied to rheumatism. Endocardial murmurs are common both in rheumatism and chorea, and chorea is often followed by articular rheumatism. Fright is a frequent exciting cause of chorea. Nevertheless, many children are frightened, and only a few show choreic symptoms. In these cases a neurotic or rheumatic tendency is present, predisposing the patient to a choreic attack.

Anti-rheumatic remedies are of no use in chorea. After observing many cases differently treated in the wards of the children's hospital, I am convinced that the disease, although self-limited, is much benefited by appropriate treatment. Most patients improve steadily under arsenic, and cases which do not yeld to the arsenical treatment are often benefited by cold douches, or by sponging. Weakly children are sponged with luke-warm water before an open fire; more robust children are drenched with a hose. They are afterwards rigorously rubbed and put to bed. It is remarkable to observe how the irregular movements quiet down after sponging and massage. Cases where there is much paresis and a slight amount of incoördination are often advantageously treated with strychnia or nux vomica.

In Widerhofer's clinic in Vienna, children with violent chorea are treated with subcutaneous injections of arsenic; but this method is not employed in London on account of its exciting the emotional attacks so common in choreic children. An interesting case of hyperpyrexia occurred in Alexandra Ward, under the care of Dr. Sturges. The following is the history:

James W., ætat. 11 months, was at birth a fine large child; was suckled $2\frac{1}{2}$ months; afterwards was given Mellin's food. Three days after birth the child had a convulsion, and at five months had several more. During August and September, 1887, child did not thrive, losing weight during this time.

Oct. 30th.—Child had a convulsion.

Oct. 31st.—One convulsion.

Nov. 2d.—A convulsion at 4 P. M., very feverish.

Nov. 3d.—Child very stiff and rigid; takes nourishment fairly well.

Nov. 4th.—Child admitted to Alexandra Ward. Child rigid in opisthotonus, gastrocnemii muscles hard, T. 108.4, in rectum; at 10.50 A. M., child put into a cold bath for 4 minutes; T. reduced to 106.5; bathed again at 11.07, and 11.12, T. 104; pulse became better and the spasm of the gastrocnemii ceased; T. at 11.45, 97. Condition at 5 P. M.: Ant. fontanelle closed; marked retraction of the head; temp. steadily rising, now 102.2; pulse fairly strong and very rapid; has at present tonic spasms of upper and lower extremities. Child has just had a general convulsion of short duration after taking milk. At 6 P. M., T. 105.2; given another cold bath, T. reduced to 102.8; child struggled, and resisted this bath much more than before. T. at 7 P. M., 100.6; at 9 P. M., 101; at 10 P. M., 101.5; at 1 A. M., 102.8; at 2 A. M., 104; at 3 A. M., 106; after sponging, 104.8; at 5 A. M., 106.4; at 7. A. M., 106; at 7.40 A. M., after a cold bath, 101.5; at 10 A. M., 99.4. During the night the child had almost incessant convulsions, which ceased after the last cold bath at 7.40 A. M. The gums were examined and found to be hard; the teeth being felt under them. The gums were cut by the house surgeon at 12.30 A. M. In the afternoon the temp. rose again to 101; at 2. P. M. it sank to normal, and has remained there ever since.

Nov. 5th.—Child slept quietly during the night; lies on right side, head slightly retracted, limbs quite rigid, P. 84. The abdominal, cremasteric and plantar reflexes were active. An opthalmoscopic examination revealed a healthy left disc; R. disc. showed slight evidence of optic neuritis; child swallows well.

The subsequent symptoms showed no evidence of meningitis and the child continued steadily to improve. It was not particularly peevish and took its nourishment (peptonized milk), with apparent relish. When handled or examined, the child's arms and legs had grown perfectly stiff and rigid. The child was seen by Dr. Hughlings-Jackson, who was of the opinion that it was idiotic.

Up to this date, December 21, the child showed no further change, except the appearance of three upper and two lower teeth

and slight enlargement of the cervical glands. The extreme rigidity is still present.

Whether the hyperpyrexia was due to dentition, tetany or some brewing cerebral mischief, I do not know; but the happy effect of the cold bathing was very evident.

The following case of meningitis is noteworthy, both from its protracted course and happy issue:

Henry W., ætat 4 years, had suffered from no previous illness, no fits, no otorrhœa; up to October 16, 1887, was well and at school. In the evening of October 16, the child vomited three times without apparent cause, but slept well during the night.

Oct. 17th.—Child got up, but was too ill to go to school; he was languid and feverish all day until 5 P. M., when he passed into an unconscious condition. During the night he was delirious, tossing about in bed and jerking his arms and legs.

Admitted to Alexandra Ward October 18; condition, child lyon his left side, slight head retraction, eyes three parts shut, offers no opposition to opening R. eye, but considerable to opening left; R. conjuntiva quite anæsthetic; tongue moist and covered with white fur; sensation over R. side much diminished. Right upper and lower extremity can be only feebly moved. During the examination the child resisted quite forcibly with left arm and leg, but scarcely moved the right arm and leg at all. The anæsthesia and paresis of the right side were very marked; T. 104, P. 160.

Oct. 19th and 20th.—The axillary temp. was from 4 to 6 degrees higher on right side than left; the temp. being usually about 104; the right side anæsthesia continued.

Oct. 21st.—Child can swallow for the first time since Oct. 18th; slight right sided facial paralysis; can at times speak quite intellibly, and is able to move right arm and leg much better than yesterday; superficial reflexes obtained; knee jerk quite marked; temp. normal; no discharge from either ear; optic discs healthy; urine and stools passed under him.

Oct. 22d.—Child unable to swallow; fed with nasal tube. He has no anæsthesia and moves arms and legs fairly well. He is more conscious and does not persistently lie on his left side; has some head retraction; no facial or ocular paralysis; temp. normal.

Oct. 24th.—Temp. 104; child unable to answer questions; sensibility diminished on right side; abdominal and epigastric reflexes absent; left cremasteric and plantars present; no knee jerk, no ankle clonus.

Oct. 27th.—Some retraction of the head; in sleep the head twitches forward, also twiching of right angle of mouth; temp. 103.6; pulse 120; respiration 28; urine has a trace of albumen.

Oct. 28th.—Child is still unconscious; has not wasted apparently during its illness; sordes upon lips; lies with legs drawn up; tremulous movements of lower jaw noticed; sensation and motion alike on both sides; superficial reflexes obtained; ears very tender; L. membrana tympana congested; T. 104.

Oct. 29th.—P. 128, irregular; R. 40; T. 104.2; L. membrana tympana punctured; nothing found.

Oct. 31st.—T. 104.6; P. 140; R. 32; patient on R. side; twitching of forehead, angles of mouth and cheeks.

Nov. 1st.—T. 104.2; child rolls its eyeballs from left to right and right to left; sits up for food, which he takes regularly; when he has opened his mouth he will keep it open for several minutes.

Nov. 2d.—T. 104; patient takes food fairly well. If when lying on his back his arms and legs be placed at right angles with his body, or in fact in any position, they remain in the position in which they are placed; a curious phenomenon often present in cataleptic cases (flexibilitas cerea); no anæsthesia.

Nov. 3d.—Child sitting up to-day; T. at 6 A. M. 99, at 10 P. M. 104.

Nov. 4th.—Patient is pale and prostrate; he is now fairly conscious for the first time since his illness; head retracted, tongue dry, cries with pain when his head is moved; can hold a glass in his left hand but not in his right.

Nov. 5th.—Morning temp. 97; evening 103.

Nov. 6th–9th.—Patient remains in the same condition; morning temp. being normal and evening about 103. The child lies semi-unconscious, taking food, but paying no attention to surrounding objects. The pulse at the wrist is so feeble and thread-like as scarcely to be counted.

Nov. 11th.—P. 132, T. 102; child is hyperæsthetic; neck stiff; he can answer questions intelligently; can hold a glass in his right hand, but with difficulty and slight incoördination.

Nov. 12th.—T. 102.6; child vomited twice.

Nov. 14th.—T. 100; head retracted.

Nov. 15th.—Child is paler and thinner than before; has vomited several times daily for the last four or five days; T. 100.2; R. 24; P. 152, exceedingly weak; evening temp. 103.

Nov. 16th–19th.—Child very much collapsed; pulse thread-like; extremities cold, vomiting still continues.

Nov. 23d.—Child shows distinct R. facial paralyses.

Nov. 29th.—The T. 95; child much wasted; abdomen retracted; right hand is colder than left, which shows great paresis; urine and stools no longer involuntary.

Dec. 1st.—P. on left side 116, on the R. side hardly to be felt; R. sided paresis very marked; neck no longer stiff.

From this date the child steadily improved. The facial paralysis gradually disappeared; the child grew brighter and more cheerful each day. When first placed upon his feet progression was crossed legged.

At this date, December 21, the only trace of his illness left is some slight muscular weakness and the curious condition of flexibilitus cerea.

The treatment throughout was severely expectant; grey powder was given for the first three weeks, and digitalis and brandy during the period of collapse. Neither antipiretics nor cold to the head were employed during the long period of high temperature and coma. Nutrition was well maintained by peptonized milk and beef tea. The diagnosis at first rested between tubercular and simple meningitis. The disease was certainly veritubercular meningitis.

The anæsthesia and paresis of the right side might indicate a lesion about the motor tracts of the left hemisphere or in the left internal capsule.

Diphtheria is treated at the Children's Hospital with perchloride of iron internally. Barlow advises the administration of small doses of mercurials if the tongue be coated. In Vienna all cases are

treated locally with lactic acid, and cases of laryngeal or septic diphtheria were treated internally with calomel, and also with inunctions of mercurial ointment. Tracheotomy is here, as in all European hospitals, performed early. Last year about 49 per cent. of tracheotomies for laryngeal diphtheria recovered; this year, owing to the more malignant type of the disease, about 30 per cent. got well.

Many cases of diphtheria have been followed by post-diphtheritic paralysis with its symptoms,—loss of knee jerk, ocular paralysis, paralysis of accommodation, paresis and anæsthesia of the pharynx.

Belladonna is employed here as a heart stimulant, for this condition. In severe cases as much as ten drops of the tincture have been given every two hours with marked benefit. If the child be unable to swallow, nutrition is kept up by feeding through a nasal tube, and by the use of nutrient suppositories of peptonized beef.

Dr. Angel Money has recently made the interesting observation in reference to the reflexes of post-dipththeritic palsy, that the knee jerk is at first exaggerated and afterwards lost.

IRVING M. SNOW.

Clinical Lecture.

PROF. PARK'S SURGICAL CLINIC, BUFFALO GENERAL HOSPITAL.

Reported by W. H. Bergtold, M. D.

1. Extirpation of enlarged and tortuous vein for cure of varicose ulcers:

J. B., October 28th inst., presented himself a year ago at the hospital for relief from a simple ulceration of the left leg, originating through an abrasion which, not healing fast enough, was treated with pure carbolic acid. The diffused excoriation and dermatitis that followed was successfully treated in the hospital. He again applied about January 1st, stating, briefly, that since his return to work the site of the old ulceration had reopened two or three times. He now wished, if possible, to obtain permanent relief. Two small spots of ulceration on the middle of the anterior surface of the left leg were revealed by examination, together with varicosity ot the vein above, extending nearly to the internal tuberosity of the tibia.

In other respects his condition was good. While the man was being anæsthetized the lecturer referred to several means of cure for these ulcerations, which were due without any doubt to disturbed trophic influence in connection with enlarged veins.

The speaker, although he had given various methods considerable trial, latterly used most frequently injection of pure carbolic acid into the dilatations to secure coagulation, etc. This operation, in his experience, he had considered the most useful. He purposed using in the present case a procedure he had not had an opportunity to try before—an operation which secured directly what was attained by the other methods in a more roundabout manner, to wit, permanent obliteration of the varicose vessels. The patient's leg had been soaked, for some hours previous, in warm water to facilitate removal of dirt, hair, etc. Its surface over the vein was thoroughly shaved, cleaned and washed with turpentine and alcohol. A rubber bandage was next loosely bound around the thigh immediately above the knee, making plainer by engorgment the parts to be extirpated, and a linear incision, several inches long, carried through the skin and over-lying structures down to the vein. After isolating the vein's proximal end, it was ligated with cat-gut and severed. Removal of the bandage now followed, it having served its purpose. To dissect the vein from its surroundings, remove it from above downward to the lower end of the incision, occupied but a moment. Another ligature was thrown around the vein below and the varicose portion cut off. Before continuing, pressure was again applied to dilate any smaller veins that might have escaped notice before. As none were found the wound was flushed and cleaned with a solution of bichloride. The unhealthy indurated tissue encircling each ulcer was scraped out, the incision wound closed with continuous cat-gut sutures, and over all a thorough antiseptic dressing applied. Primary union was had in this case under the first dressing, it being removed on the eighth day.

2. *Exsection of lower jaw for epithelioma:*

M. C., aged 52, Irish. No flaws in his family or personal history detected. For many years he had used tobacco, in his pipe, in excess. Otherwise habits had been good. About two years ago a

small, hard papule formed on the lower lip, where he had been accustomed to hold the stem of his pipe when smoking. This spot continued indolent for nearly a year, although during this time he experienced more or less stinging, shooting pain, radiating from the lip. In January, 1887, he consulted a quack in this city who diagnosed "cancer" and used a caustic plaster to remove it. Until last September he imagined himself cured. At this time a small hard lump appeared under the left side of the jaw, and with it he noticed a growth under the lower lip and integument covering the chin. These masses steadily increased in size. Examination defined a large hard body springing from the chin, nearly as large as a hen's egg, and a similar tumor under the jaw extending well downwards towards the thyroid cartilage. A livid scar about the lip with firm ahesions to the bone beneath indicated where the caustics had been applied. This patient's urine contained fifteen grains of urea to the ounce, total quantity remaining normal. Such a fact would shed some light on a diagnosis as a malignancy or benignity had the tumor primarily invaded some internal viscera or structure. In the event of such a case the relative amount of urea excreted is nearly always in excess, when the growth is malignant. However, this excess does not always hold true in malignant neoplasms of external structures. Operation done only at patient's urgent request. Chloroform. Dr. Park's first incision began at the junction of the middle and left third of the lower lip, curved to the right following the margin of the tumor downward; a smilar though reversed incision was made on the left side, starting from the left angle of the mouth and meeting its fellow of the opposite side below the chin. From these lines flaps were rapidly laid back, the lower canines extracted and a portion of the inferior maxilla, bounded on each side by the first bicuspids, divided with a chain saw and removed, taking along the larger tumor. As so much support for the tongue was now removed and the silk tractor, previously inserted into the tongue, proving insufficient to prevent the tongue dropping back into the pharynx, a tracheotomy was done securing ample breathing space and obviating all further danger of asphyxia. Through a prolongation of the first incision, drawn parallel with the lower left edge of the jaw, the submaxillary nodule was excised. The deceased

portions being now all removed, the body of the thyroid and the tendon of the left digastric thereby exposed, the operator addressed himself to closure of the extensive wound so as to give the patient the best possible mouth. Lateral incisions were made into each cheek and flaps dissected up which, by sliding, permitted easy approximation in the middle line, the greater part of the new lower lip thus being lined with mucus membrane A large number of silk sutures were applied and the wound completely closed, with the result that the patient's face again made a very presentable appearance. Only a small opening was left for drainage purposes at the most dependant portion of the wound. The cavity in the floor of the mouth resulting from the operation was filled with oxide of zinc gauze, which Prof. Park is now using largely to the exclusion of iodoform gauze, he finding the former just as effective and much less, if at all, poisonous. Externally only a collodion dressing was applied over the wounds. Zinc gauze was also packed around the trachea tube. The latter was removed on the fourth day; every stitch held properly, every line of suture held by immediate union, and by the end of a week the last of the stitches had been removed.

This case progressed favorably in every respect till the tenth day, when a mild traumatic mania set in, and he became excessively hard to manage; a small portion of the lower wound reopened. Soon he showed unmistakable evidences of cardiac asthenia, and with a superstition peculiar to his race abruptly gave up hope and manifested suicidal tendencies. He died at home on the fifteenth day, of heart failure, in spite of vigorous tonic treatment.

January 7, 1888.

DOCTOR (to patient): "Well, how do you feel to-day?" Patient (in agony): "Oh, doctor, do something for me. I suffer the torments of the damned!" Doctor (in surprise): "What? Already?"

STUDENT: "Well, we treated the patient in the most approved way. Doctor: "How?" Student: "Well, we put him on milk diet; then he was put on wine; then we put him on the electrical treatment; then we put him on quinine, and now—" Doctor: "You will put him on ice."—*New York Hotel Trail.*

Selections.

Antiseptic action of Calomel when given in large doses. —In cases of dysentery most prompt results in relieving tormina and changing the character of the stools were manifested. It acts as a cholagogue, producing a free flow of bile, sweeping out the contents of the bowel, and as a mercurial it exerts an antiseptic action. In cholera its usefulness in large doses has been advocated by some and denied by others. The first effect of the calomel in epidemic dysentery is to empty the bile-ducts and get a large flow of bile, and relieve the congestion of the liver and intestinal vessels. The second effect is due to the solution of the mercurial in the bile, as pointed out by Headland, and this probably acts as an antiseptic in the bowels. The object is not simply to purge the patient, but to obtain a copious bilious discharge from the action of the liver. Where the tongue was most coated he got the best results. He believed that patients are killed by the use of opium and astringents, —*Cincinnati Lancet-Clinic, October 29, 1887.—Analectic.*

Rupture of Tendon of Quadriceps Extensor on Both Sides.—A man, æt. 51, while carrying a heavy weight, slipped and fell backwards, feeling a violent pain in his right knee, accompanied by a sensation of tearing. Carried home, he lay up a fortnight, and when all swelling about the knee had subsided under the use of leeches, he got about. He kept on at his occupation of a glazier for a year, when one day, losing his balance, he again slipped, and made a violent effort to save himself from falling backwards. He at once felt in the left knee the same sort of pain and cracking as he did in the right a year previously. In bed six weeks, with swelling of the knee and much pain. Cold dressings were applied. He then got about on crutches, and being unable to work, sought advice for first time. When standing up, the slightest pressure or weight suffices to make him fall; in fact, a cat brushing past him upset him one day. The local condition is interesting. Right knee: when flexed, the condyles are most clearly seen projecting with a hollow between them, and the sharp upper border of the patella is felt in relief, with no fibres attached to it. The finger can be pushed down

with the skin in front of it, into a large hollow behind the patalla and between the condyles. When the leg is extended, the patella is extremely mobile. The left side differs only in there being a more complete severance of the tendinous fibres of the vasti muscles, allowing greater mobility of the patella. A good illustration accompanies the description of the knees. Out of forty-three actually reported cases of these tendinous ruptures, there are only eleven double ones. Binet and Nélaton place the rupture one or two inches above the border of the patella, but here there seems to be a regular tearing away of the fibres from their bony attachment. The fact of the second accident happening after a year's interval agrees with Malgaigne's explanation of the patient having to put the sound limb to greater exertion. There is no hope for improvement here. Ruptured tendons mend by cicatricial tissue, which cannot occur here as there are not two ends for the reparatory tissue to be thrown out between. Suturing would not do, as in the absence of a lower end it would not be tempting to sew the musculo-tendinous stump to the bare bone of the patella. An apparatus is the only resource, one with supports on each side, a hinge allowing slight voluntary flexion, and with a strong pad of caoutchouc to replace the tendon. —*M. Ed. Blanc, Lyon Medical, October 31, 1886.—Annals of Surgery.*

Book Reviews.

PRACTICAL MICROSCOPY: A course of Normal Histology for Students and Practitioners of Medicine. By Maurice N. Miller, M. D. Pp. 217. Illustrated. Wm. Wood & Co.: New York. 1887. Buffalo: J. H. Matteson.

While the practice of medicine has been, and always will be, an art in the highest sense of the word, the *study* of medicine is fast becoming a definite though very complicated science. Every year contributes new researches and discoveries to physiology and pathology, threatening rapidly to solve the mysteries of life and death. No *student* of medicine can pretend to understand and keep pace with these, much less succeed in furthering the cause, unless he knows how to use the microscope and understands the minute anatomy of the economy. The knowledge of *pathological* histology naturally implies a thorough knowledge of *normal* histology, as effect

does of cause. There are several text-books on normal histology intended for the use of beginners and for an aid in laboratory work. Some are excellently illustrated while the text is meager, and vice versa. Others contain good text and illustrations, with no directions whatsoever as to the preparation of tissues, the principles and manner of staining, etc. Dr. Miller's book, though not perfect, has none of these defects. The text is concise and clear, it is well arranged, admirably illustrated and has a complete index. One of the peculiar features of the book is the fact that it is illustrated by the author himself and from actual specimens. In every particular it answers the purpose for which it is written better than any other book we have seen. The publishers, however, should know that a book intended for laboratory use should have a darker binding than this has.

A Manual of Medical Jurisprudence. By Allan McLane Hamilton, M. D. With illustrations. Pp. 370. New York: E. B. Treat. 1887. (Price, $2.75.)

Dr. Hamilton's large experience, both as a clinician and as an author, peculiarly fits him to write a book on this subject; especially one which, like that before us, is prepared with special reference to the diseases and injuries of the nervous system. Inasmuch as these are the diseases which are most often the sport of lawyers, and concerning which there are the greatest uncertainties even in the minds of well-trained physicians, it is well that we have a work on their jurisprudence by so competent a writer. Some most important points he makes especially clear; as, for instance, that the insane are able to scheme and plot and exercise an amount of reasoning power, which, however, originates from *false premises*. To the psychology of crime he devotes as much space as could be expected in such a manual, and sets forth in a most entertaining manner the legal relations of the criminalism of the insane. The subject of feigned insanity is handled, not at length, but with care. A chapter of some length is devoted to the hysteroid states and feigned diseases, and most serviceable hints are given for their detection. A considerable proportion of the volume is devoted to alcoholism and its jurisprudence, and to suicide. Finally, we have an important chapter devoted to cranial injuries, and another to those of the spine. We are pleased to see how well he agrees with Page (whose book on this

subject we consider the best extant) concerning the latter. Space fails for a critical review, but altogether we consider Dr. Hamilton's book a model in its way, and accord it a very high place in medico-legal literature.

THE RECTUM AND ANUS; THEIR DISEASES AND TREATMENT. By Chas G. Ball, M. Ch., F. R. C. S. I., etc. With 54 figures and 4 colored plates. Pp. 410. Philadelphia: Lea Bros. & Co. 1887.

Since the publication of Smith's lectures on this subject no new work has appeared in Great Britain which does justice to the important topics considered in this clinical manual of Mr. Ball's. While there is but little absolutely new and nothing startling in the book, it yet represents the best thought of a thoughtful man on topics concerning which a large experience decidedly fits him to speak. The author shows himself quite conversant with what American workers have done in this special field of surgery, and in this respect sets a good example which we wish more of his countrymen would follow. We are glad to see Whitehead's method of treating piles by excision given the prominence it deserves. For the carbolic acid treatment of the same malady the author cannot speak as kindly. But nowhere do we find merited stress laid on the combination of dilatation of the sphincter with whatever other method may be selected, which Bodenhamer, among others, has so strongly insisted on, and which is calculated to yield such great benefit. The chapters on neoplasms are, comparatively, extensive, and evince a careful study of the literature of at least three languages and two continents. Ball shows himself as a friend of excision of the cancerous rectum, at least in suitable cases, as every one must be who ponders carefully over the results obtained thereby. Altogether we like the book very much, and welcome it as an addition to the excellent series of clinical manuals which are being republished in this country by Lea Bros. & Co.

AN INDEX OF MATERIA MEDICA, WITH PRESCRIPTION WRITING. By C. H. May, M. D., and C. F. Mason, M. D. Pp. 267, 16mo. New York: Wm. Wood & Co. Buffalo: J. H. Matteson. 1887.

The first part of this little pocket manual is devoted to an alphabetical list of remedies, with brief notes, doses, etc. The second part includes several chapters on prescription writing, a list of pharmacopœial terms, some instructions in prescription Latin, and a brief

digest of the essential features of the pharmacopœia;—all of which is calculated to be of the greatest use to the student. In every respect it presents *multum in parvo*, and cannot be too highly praised.

BOOKS RECEIVED.

From E. B. Treat & Co., New York:

Photographic Illustrations of Skin Diseases. Second Series. Parts I. and II.: Geo. H. Fox.

From W. T. Keener, Chicago:

Rectal and Anal Surgery: E. Andrews.

PROFESSOR FAUVAL ON THE VIN MARIANI.

13 Rue Guenegard, Paris, December 8, 1887.

To the Editor of the New York Medical Journal:

Sir—Will you kindly have it announced in your journal, in justice to myself before the medical profession, that the various notices appearing in journals and circulars quoting my name in connection with coca are entirely false and in every respect a prevarication. The only preparation of coca employed by me with undoubted and uniform success has been the so well-known *vin Mariani*, which, since 1865, I have had occasion to prescribe daily in my *clinique*, as well as in private practice. My opinion of this valuable medicament, together with those of many of my *confrères*, has during many years been frequently made known for the benefit of the profession in various writings, and it is but just to this worthy preparation that it receive all honor due. I thank you for compliance with my request.

Ch. Fauval.

Succus Alterans (McDade).—Owing to the claims made by some parties that they obtain this well-known preparation in bulk, it is important that physicians should know such are false, as we are informed by the manufacturers that succus alterans is only put up in pint, round amber bottles. This remedy has come into such general use by the profession that care should be taken to secure the genuine, prepared by Eli Lilly & Company, which has given such good results and established the reputation it now enjoys.—*Indiana Eclectic Medical Journal.*

WANTS, EXCHANGES, &c.

To Exchange.—Part II., medical volume of The Medical and Surgical History of the War of the Rebellion, for either Part I. or III. medical volume, or Part II. surgical volume of the same work. Clarence King, M. D., Machias, N. Y.

To Exchange.—For other microscopic preparations. Mountings of nearly all the pathogenic bacteria. Also, cultivations of same in gelatine or agar-agar, for sale or exchange. Address the Editor.

The Medical Press
of Western New York.

Vol. III. MARCH, 1888. No. 3.

REFLEX NEUROSES.

By Willis E. Ford, A. M., M. D.
Utica, N. Y.

[Read before the Medical Society of the State of New York, February 7, 1888.]

I had the honor last year of presenting very briefly some observations upon reflex neuroses, mainly from a theoretical standpoint, defining the limits within which this term should be used.

There is a manifest difference in the estimation placed by various writers upon the significance of reflex nervous disturbances. In various ailments which have a nervous element and are of rather obscure origin we find explanations altogether diverse, and the range of symptoms stated to be of a reflex nature very wide.

Perhaps no class of medical writers have used the term so indiscriminately and so generally as those who have discussed uterine and ovarian disorders. It is certainly a great temptation to ascribe to reflex causes symptoms that cannot otherwise be readily explained, and to persistently treat well-defined local disorders in the vague hope that all will end well. It seems to me doubtful, however, whether this term should hold the place it now does, and whether the cause of true science will not be subserved by a closer construction of its meaning. As an element in the causation of real mental disturbances it has already been almost entirely discarded, and occupies a place alongside the term emotional insanity. In the meantime the removal of many of the disorders heretofore called functional nervous diseases to places having well-defined pathological bases is going steadily forward, and this term will, I hope, soon disappear. It seems to me we must steadily adhere to the position that only such phenomena as are sudden, explosive and momentary, can be ranked as reflex. This is argued from physiological reflex acts of which the commonest examples are winking, coughing, sneezing,

swallowing, etc. Scattered through nearly all the writings on nervous diseases, however, we find reflex disturbances described as conditions, continuous alterations and permanent disturbances of functions, rather than as immediate and definite acts.

Nearly all American writers on Gynæcology refer to reflex disturbances which are easily recognized as conditions of debility accompanied either by hysteria or neuralgia following the injuries or inflammations of the pelvic organs. So, also, oculists have attributed various disorders of the nervous system, aside from the obvious palpebral spasms, solely to reflex disturbances resulting from errors of refraction.

In a former paper I quoted at length several of these authors, and I only refer to them now in order to justify the statement that the term is not sharply defined, and is not always held to mean the same thing. That irritation of a peripheral nerve which is not sufficient to produce any perceptible change in the nerve itself may produce symptoms in organs remote from, and not in direct nervous communication with, the spot irritated, and without any lesion of the central nervous system present, is a fact that has been recognized by all observers for a century past.

The vivacity and energy of the phenomena produced do not always bear a direct proportion to the amount of stimulus applied. Thus in certain cases slight alterations in the mucus membrane of the nose produce the most violent sneezing and coughing, while on other occasions the same subject will suffer much greater irritation without such marked explosions. Certain children show a tendency to trismus from slight intestinal disturbance or from the effects of dentition, which the same children have suffered before, and may have again without any manifest tendency to convulsion.

Asthmatic symptoms and spasmodic croupy coughs occur from slight local disturbances which do not usually affect the majority of mankind. It is equally true that the vast majority of injuries or continued irritations of the peripheral nerves never cause any reflex disturbances. It is fair to argue from such facts as these that the loss of nervous stability and control has to do with the inhibitory power of certain ganglia, and determines the question of convulsion oftener than does the condition of the peripheral nerve.

It is possible that too much stress has been laid upon the necessity of removing peripheral irritations, and not enough stress placed upon the general treatment of the patient with a view to the improvement in the inhibitory power of the central ganglia.

There have been many cases of laparotomy reported for the cure of epilepsy, periodic mania, hystero-epilepsy, etc., which have not shown very flattering results. The failures, I think, have as frequently been due to neglect of the general treatment afterward, upon the assumption that the ovarian irritation was the sole cause of the condition, as to the fact that in many instances what begins as a reflex phenomenon sometimes produces changes in the central nervous system with permanent symptoms.

Some cases of my own developed facts in this connection that were exceedingly interesting. A woman, aged forty, unmarried, who developed epilepsy soon after puberty, showing the disturbance at first just before menstruation only, and latterly at irregular and short intervals, became markedly worse during the two years preceding 1887. Her convulsions, even when under the influence of bromide salts in as large doses as could be given, occurred almost daily and often five or six times daily. The convulsive movements were very violent. Her mental condition was good. The very best talent both here and abroad had failed to relieve her. She was known to have a slighly retroverted uterus and I found in addition that the left ovary was prolapsed, slightly enlarged and irregular in its contour, and extremely sensitive to pressure. Very slight squeezing of this ovary produced not only pain but vertigo and slight attacks of petit-mal. In May, 1887, I removed both ovaries and tubes, finding no adhesions or indications of former inflammation in the adjacent tissues. The left ovary contained one cyst in its capsular portion about the size of a cherry, and there were four or five smaller ones surrounding it. The entire ovary was three times its natural dimensions due to chronic interstitial oöphoritis. The right ovary was about one-half the normal size. The capsule was not involved. The degeneration was confined to the organ proper and resembled the granular degenerations seen frequently in kidney and spleen tissue. It was not a tubercular cheesy nodule, yet was of a greyish color. This is a rare form of oöphoritis and is not

found described in the ordinary works on pathology, and is due to some interference in nutrition. It is a pity that there is so little to be found in the literature of laparotomy regarding the changes found in the ovaries themselves. The patient recovered from the operation without untoward symptoms, but on the tenth day had a tremendous convulsion. I then began the administration of the bromides and afterward gave cod-liver oil with arsenic, and employed massage for several months. She was very susceptible to the bromide salts and only about twenty grains daily of the mixed salts could be given without bringing out very ugly sores. This dose was sufficient to prevent an attack. After eight months of constitutional treatment she regained her flesh and strength, and was so far free from epilepsy that she could go to her meals with the family and could walk on the streets, and she enjoyed more liberty and better health than she had known for twenty years. She had twelve slight seizures in six months. I do not think that the simple operation would have produced very marked change in the nature of this disorder. The restoration of the general health and the consequent improvement of the nutrition of the ganglionic nervous system brought about such reparative processes that the inhibitory power of those ganglia returned.

At about the same time my colleague at St. Luke's Hospital, Dr. Booth, removed the ovaries of a young woman for the relief of violent hystero-epilepsy. She had paroxysms three or four times a week which began like a hysterical convulsion and ended in hours of such violence as to make it impossible to care for her at home. There was a large hysterical element in the case and she had been placed in the insane asylum once, but discharged not insane. Both ovaries were found the seat of chronic interestitial oöphoritis following gonorrheal infection. The capsules, stroma and the follicles in turn had been involved in the inflammation, and there was considerable increase of the connective tissue, which had contracted in places, giving the organ an irregular outline. The tubes were thickened and dilated, and the seat of chronic salpingitis. The cure in this case was ultimately perfect, though delayed until the general health of the patient had been restored and the discipline of the hospital had helped her to control her emotions.

About two years ago a man was sent to me with the request that he be castrated to cure his epilepsy. This I refused to do. I sent him to the hospital, where it was learned that he was a farm laborer about forty years of age, and that he had epilepsy for about fifteen years; that he was a habitual masturbator, and that the fits came on immediately after a seminal emission and at no other time. There was no history of injury or severe illness. He had the grand attack about twice a week, sometimes oftener and the *petit* attack occasionally. He was found to have an irritable prostate and was treated for a long time with sounds as well as by bromides and tonics to no effect. Finally he procured a legal assignment of his testicles, and after two consultations with a full hospital staff it was agreed to remove them. This caused no special change in the character of the convulsive seizures, though while the wound was healing he was free from them. No change in his physical or mental traits were observed. His testicles showed that they had atrophied *en masse* and there was no other pathological change. They were shrunken to about one-third the normal dimensions. After a prolonged course of tonics and good food his malady slowly improved, and after a year and a half he was able to resume work, though unless he takes small doses of bromide he still has an occasional convulsion.

This operation did not in itself produce very marked effect upon the course of the disease, and I doubt if the man would have received any permanent good from it if he had not been followed up for a long time with judicious tonic treatment.

A boy of about ten was brought to me last year with a history of epilepsy dating back about eighteen months. The attacks had become more frequent and were usually nocturnal and were followed by several hours of delirium. He had a very close phymosis with considerable ulceration of prepuce and great sensitiveness. He was thin in flesh and nervous and peevish. I could get no history of masturbation. Circumcision stopped the attacks for a few days, and though after the wound had healed there was no longer any sensitiveness or pain, the convulsions returned with about the same severity. Small doses of the bromide were given for a short time and then cod-liver oil and tonics were substituted after a few months, and the boy is now reported as recovered.

I have notes of five cases of urethral caruncle in which the spasm of the bladder was so frequent and excessive as to undermine the general health of the patients. In two of these, the destruction of the growth by galvano-cautery was not immediately successful, though the urethra was thoroughly dilated at the time. In a third, pure carbolic acid was used and was followed by relief sooner, because the patient was stronger than any of the others, being able to get about the house at the time. In all these cases the pain was relieved, but tenesmus of the bladder was relieved only after the general health of the individual returned, some months in each instance.

In the two other cases no operation for the destruction of the growth could be had, and the slow dilatation of the urethra with general tonics and massage was employed. Here the pain was not relieved but the spasmodic contraction of the badder subsided very markedly, though it did not entirely disappear.

I do not think that the removal of the peripheral irritation in any of these cases would have accomplished very marked good unless the general nervous tone of the individual had been improved by subsequent treatment. The delay in the recovery of all these conditions points to the fact that the sensori-motor centers require time to repair and to again establish healthy activity.

The condition, therefore, which makes reflex disorders possible is not merely disturbed function, but an altered condition of the ganglia themselves; the result of defective nutrition. Another fact which points strongly to the same conclusion is the general rule that nervous explosions, the result either of peripheral or central disturbance; always occur where the circulation is depressed. Febrile excitement may follow, as in certain cases of infantile convulsions or after a paroxysm of choreic disturbance. But it is observed that just before the outbreak, as well as at the time, the pulse is slower and weaker than normal. During the progress of any inflammatory action convulsions do not generally appear excepting where a sudden lesion occurs within the brain. Often a slight inflammatory process seems to delay or postpone the convulsive phenomena which preceded, and which return as the circulation returns to its former condition.

Of course the absence of lesions sufficient to cause death makes it impossible to obtain anatomical facts that would clear up this whole subject. In certain injuries of the spine, however, in which both motion and sensation have been obliterated, reflex acts more violent than occur in health are commonly observed, and as recovery takes place these reflex phenomena are less marked. This is undoubtedly due in part to the irritable condition of the cord below the point of compression, and the disturbance of its nutrition; though in part to interruption of the communication with the higher cerebral centers, and the loss of exercise of the will, which is known to control in a measure reflex acts.

The loss of consciousness which frequently accompanies violent reflex convulson is due to spasmodic contractions of the vessels of the sensorium, induced by an extension of the reflex motor impulse to the vasomotor nerves.

Sensation is not a necessity in the production of reflex movements. This power is inherent in the ganglionic centers of the cord, as has been demonstrated repeatedly.

In two instances I have had the fortune to witness the recovery from fracture of the neck, and in both the reflex phenomena were most marked. In one case a man was thrown down an embankment some twenty feet and was taken up unconscious. I saw him first about a month after the injury, during which time he had remained unconscious and totally paralyzed from the head down. I discovered that the atlas was broken and that the transverse process of the left side was pulled outward and could be distinctly grasped. Two weeks later he began to improve somewhat, and very violent reflex movements of the left side followed and continued for about two weeks. At the end of two months he began to regain consciousness, and about the same time voluntary motion began to return. He recovered completely in about eight months, though the displaced bone can easily be made out and he cannot rotate the head.

In the other case the fourth cervical vertebra was broken in its transverse process and displaced outward. Complete paralysis below the point of inquiry followed and the reflex excitability of the cord below, as recovery began, was very marked, and disappeared as voluntary motion returned.

It is not possible, however, within the limits of this paper to discuss those reflexes induced by excitable or irritable conditions of the spinal cord or by actual lesions in the higher centers. I cannot close, however, without brief mention of some reflex neuroses that have only recently occupied a place worthy of their importance. I refer to obstructions, either bony or simple hypertrophies of membrane, which prevent easy breathing through the nose. Much credit is due to Dr. F. H. Bosworth for his pioneer work and for his acute observations regarding these disorders.

I have studied them with special reference to nervous phenomena and have notes of eighty-four cases. Of this number twenty-three were accompanied by reflex disturbances of the most marked and positive character. The remainder were cases either of bony obstruction which I did not treat, or were simple hypertrohies producing catarrhs.

Of the twenty-three cases, six suffered violent paroxysmal pain in the chest. In each case the pain was on the left side just below the clavicle. Whether it is a mere coincidence that the pain in each instance came on the left side I have no means of knowing. A single illustration will suffice as a description of all these cases. A woman of thirty-five, married, quite stout and of a very robust appearance, consulted me for violent pain in the left chest which she said came first some years ago at irregular intervals, but latterly had occurred once or twice a week. They were described as very intense stabbing pains, coming on suddenly and lasting several hours. She was certain they were likely to occur if she had a slight cold in the head, or if she went out in very inclement weather. An examination of the chest, the larynx and the intercostal nerves gave negative results. The nose, however, was found obstructed on the left side by hypertrophic membrane and the right side to a less degree. Two applications of chromic acid relieved her, and the pain has not returned, though about eight months have elapsed since the first application was made. No constitutional treatment was recommended as the patient seemed in perfect health.

This is the type of the five other cases, all relieved by three or four applications of galvano-cautery or chromic acid. Eight other cases were relieved of violent spasmodic cough, which came on in

much the same manner as did the pain above described. Five were completely relieved, and three partially so and were lost sight of. The other nine cases had symptoms mainly of violent paroxysms of coughing and sneezing, and the treatment was most satisfactory in six cases, while in three relief was obtained only for a time. This latter fact seemed to me to be due to the impaired general health of the individuals. Five of these cases were termed hay-fever cases, and three recovered and two relapsed.

In the light of our present knowledge of these simple reflexes the subject of hay-fever seems likely to be more thoroughly studied, and the results will undoubtedly be more satisfactory than heretofore. This, however, would take me far beyond the limits of these notes, which are intended rather as suggestions than as complete discussions of this very interesting though rather neglected field of medicine.

ANTERIOR HYPERTROPHIC RHINITIS.

BY GEORGE F. COTT, M. D.
Buffalo, N. Y.

As the condition known as hypertrophy of the turbinated bones is so common and the treatment varies so much, if is but natural for the physician to adopt a method of treatment which is at once pleasant, unirritating, convenient and effective. There are many varieties of conditions present in diseased nasal cavities, but as the anterior hypertrophies are the most common I will confine my remarks to that particular affection.

It may be necessary to give the more prominent symptoms and pathology, that the remarks on treatment may have a more appreciable effect.

Symptoms.—Interference with respiration is most prominent. The mucus membrane becoming thicker as the disease progresses is more sensitive to cold, becoming engorged upon the slightest provocation.

It is a surprising fact that a large number of people afflicted pay very little attention to the abnormal condition, having become accustomed to the difficult nasal breathing. I have seen such cases the condition of which would hardly admit of operation or other alleviating treatment.

The physiological functions of the nose having become impaired, pharyngitis is a natural result, caused by impure air inhaled through the mouth. Laryngitis also is liable to result. The voice is often muffled. In patients where there is occlusion of the lachrymal sac the eyes are reddened and watery. Frontal headache is of frequent occurrence. In children the habit of keeping the mouth wide open is acquired, especially when the tonsils are also large; this gives the child an idiotic appearance. Hearing is often impaired and tinitus aurium exists. Hawking and spitting is frequently indulged in, caused by excessive stimulation of the pharyngeal glands. Occasionally when the watery substance evaporates the secretion becomes viscid and accumulates in greenish masses, causing fetid breath. The constant irritation of the soft palate by frequent straining and hawking causes it and the uvula to become elongated. Reflex conditions often exist, such as convulsions, asthma or cough.

Pathology.—In simple hypertrophies a certain amount of thickening is observed, which later involves other structures, organizing connective tissue, new blood-vessels and all other elements. The middle turbinated is mostly affected; next, the inferior. The first appearance upon rhinoscopic examination is a large mass apparently filling the entire cavity; this, however, is simply engorgement preliminary to tissue formation or organization. But as this engorgement is often, and in some cases always present, atmospheric pressure causes a marked deviation of the septum, in conformity with the requirements of existing conditions.

I have seen this deviation of the cartilage of the septum so marked that the cavity was totally occluded and the bulging could be seen on the outside of the nose.

Treatment.—A few years ago catarrh* was supposed to be incurable, but at present even laymen feel the encouraging results of its proper treatment. The cardinal point leading to successful treatment is to ascertain the real cause and exact location of the lesion. Then we can assure our patient of ultimate relief. If there be underlying constitutional trouble it must receive attention, otherwise relief is but temporary. Hygiene is most important. Medication in

* I use that noun because its meaning is generally understood, although it includes a multitude of conditions.

cachexia is always necessary. Remedies must often be changed to suit present conditions. No two patients can be treated exactly alike; while the one might be benefited, the other will receive no appreciable effect. Pot. iodide, iron, quinine, arsenic, etc., have their place. All functions of the body must be kept in a normal condition.

Local treatment is, of course, of prime importance. The old theory of injecting strong solutions, douching with irritating substances or insufflating irritating powders, has been abandoned, and mild, pleasant and more effective means substituted. When organized tissue is excessive it must be removed. That can be done in various ways. A motive temperament would, probably, take the most mechanical and convenient way; a sanguine temperament, on the contrary, would do very often as I do, take the quickest way. When the patient is a "bleeder," then the Jarvis' snare, or some of its modifications, is best; otherwise the angular scissors will do very well. If, as often happens, the cavity is occluded nearer the posterior extremity of the turbinated bone, then Stucky's scissors is best and most convenient. In simple chronic engorgement the application of H NO_3 at intervals of a week or ten days will suffice; keeping the parts clean by daily applications of some alkaline solution followed by a protective and antiseptic ointment. Within the last few months it has been my fortune to meet with a number of cases in which a bony ridge of the turbinated bone had to be removed to allow the access of sufficient air. Some of those cases would hardly admit of operation, the bony structure being so irregular and the septum deviating too much; but by tedious work a sufficient amount was removed so that nasal respiration became comparatively easy. In most cases of ossification I amputated the bone readily with a nasal saw, similar to that of Dr. Bosworth, of New York. The hemorrhage is usually very severe but easily checked. Secondary hemorrhage occurred but slightly; the patient being able in every case to resume his business pursuits the following day. After treatment is simple:

℞ Sodii bi-borat.....gr. x.
Listerin.....gtts. x.
Ol. vaselini.....℥iii.
M.

Apply with a DeVilbiss Atomizer (the best and cheapest in the market, sold by C. M. Lyman of Buffalo).

In some cases of hypertrophy the secretion accumulates, but can easily be removed by alkaline spray, as:

℞ Sodii bi-borat.....gr. xx.
Sodii bi-carbonat.....gr. xv.
Glycerini.....℥i.
Listerin.....℥i.
Aquæ.....q.s. ad O ss.
M.
Sig.—Warm the solution and apply thoroughly, followed by:

℞ Resorcin.....gr. x.
Ol. vaselini.....℥i.
M.

While vaseline is soothing and protecting, resorcin, according to Dr. A. B. Thrasher, of Cincinnati, causes a shrinking and contraction of the epithelium. The deeper tissues are affected by the contraction of the blood-vessels and a consequent stoppage of nutritive supply of the parts; acting similarly to cocaine, but lasting much longer. It is principally applicable when the mucous membrane is œdematous without much hypertrophy. The application of acids in these cases leaves a scar, while resorcin allows the mucous membrane to perform its proper function, and produces the same result. In the treatment by operation of all nasal affections cocaine is, of course, necessary to prevent pain.

WHOOPING-COUGH is said to be an aboriginal invention. This conceit is due to the belief that it makes the victim resemble the savage—that is, it makes him look red in the face.—*Exchange.*

A DISPUTE recently arose between a woman-suffragist and an opponent, during which the former was rolled around rather roughly upon the earth, her hair being peppered with gravel. This led to the rumor that the woman-suffrage movement was gaining ground.—*The Gossip.*

ONE startling change in the character of sensation which Mr. John Lawrence Sullivan has given the world is promised by a recent rumor. By this we are led to expect a contribution to literature from the doughty knight on self-defence. Since there is no branch of this art which will teach us how to defend ourselves from this blow, we must, of course, submit to it, and in doing so we are inclined to wonder as to the outcome of this new development of evolution—the culmination of a literary hero from the germ of muscleman.

TWO SONNETS.

THE PHYSICIAN'S LIFE.

Et curate infirmos qui in illâ sunt.—St. Luke.

A noble task His life to imitate,
His life, the Good Physician, the Divine,
Who went about with gentleness benign,
Disease to cure and misery to abate;
Helping all men in whatsoever state,
With heavenly therapeutic oil and wine,
Th' emollient oil, the roborant juice o' vine.
This be our task: Henceforth our path is straight;
Wherever anguish is, or grief or pain,
There be our place, there let us do our part,
Striving to antidote death's deadly bane
By our divine and ever blessed art,
Praying that we by Him be wisely led,
By Him whose mighty power can raise the dead.

—F. Bradnack, M. D.

THE QUACK DOCTOR.

By love of gain deprived of love's insight,
He knows no law of health nor of disease;
Confounding facts and fables, wrong and right,
His conscience sleeps, lulled in unconscious ease.
The God in nature—nature's healing force—
He understands not, though his coffers fill
From her benignant hand. As a blind horse
That hurries onward, up or down the hill,
To find its manger: so to feed on gain
The quack treads underfoot whate'er may lie
Athwart his path; nor dreams of wealth in vain,
Though one with sin and death, and destiny.
Oh, for a dazzling ray of truth and light,
To smite all falsehood down to endless night.

—Edward Howard, M. D.

The adoption of electricity as a means of disposing of murderers will necessitate a change in the formula of judicial sentence. Instead of the stereotyped form it will be, "The sentence of this court is that you be taken hence to the state prison, and there, at such time during the week beginning January 8th as the keeper shall select, you shall be copiously injected with the electric fluid until you are dead."—*The Gossip.*

The Medical Press

OF WESTERN NEW YORK.

Published by THE MEDICAL PRESS ASSOCIATION of Western New York.

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Subscription price: $2.00 per Annum.

Address all communications, for the present, to the Editor, 510 Delaware Avenue.

S. Cecil Stanton, LONDON AGENT, 17 Southampton Row, London, W. C.

BUFFALO, N. Y., MARCH, 1888.

RECENT RESEARCHES CONCERNING ANTIPYRIN.

The uses of antipyrin have been very thoroughly investigated by the French and German physicians. Their results are shown in the following extracts from *Le Progrés Médical* and *Schmidt's Jahrbuch* for 1887:

"Experimental and Clinical Researches on the action of antipyrin," by C. Caravair, from *Le Progrés Médical* of October 29, 1887: "From a physiological point of view, experiments show that antipyrin, in therapeutical doses, acts especially upon the cord diminishing its excito-motor power. In subcutaneous injections it has a most evident analgesic action. In slightly large, but not toxic doses it diminishes the full strength of the cardiac systole; while on the other hand the peripheral vessels are dilated. In five to ten per cent. solution antipyrin is powerfully antiseptic.

From a therapeutical point of view antipyrin has a powerful action upon the element of pain; which it causes to disappear rapidly, whatever may be its origin. It has a rapidly curative action upon acute articular rheumatism, presenting only three slight inconveniences, which are moreover rare,—vertigo, nausea, and sometimes vomiting. It is useful in neuralgia, sciatica, herpes zoster, sick headache, the pain of the nervous, the ataxics, those suffering with heart-disease, etc.

By its pain-relieving action, as well as its antiseptic power, antipyrin acts in a wonderful manner upon blenorrhagic rheumatism.

Antipyrin has also a most remarkable action in relieving dyspnœa, especially in cases of paroxysmal dyspnœa, as in attacks of asthma. In all these cases antipyrin can be administered by the stomach in doses of from three to six grammes per day, or by subcutaneous injection in a dose of from one-half a gramme to one gramme at a time, once or twice daily. This second method ought to be reserved for most pressing cases, such as very acute pain, intense dyspnœa, etc. Antipyrin may be used as a local application. The author has likewise obtained many good results in blenorrhea by the use of urethral injections of a solution of a strength one to ten; or still better by making use of medicated bougies containing 0.80 gm. of antipyrin."

"On Antipyrin: by Forsbook, Jennings, Brayton and Whitehouse."—from *Le Progres Medical* for December 17, 1887:

During the last two years numerous experiences have shown the efficacious action of this remedy in most fevers. Every one knows that it causes a sufficiently rapid fall of temperature in these cases, and diminishes, at the same time, the pain of acute articular rheumatism. A great number of physicians have used it and have obtained the best results; it seems in certain conditions to surpass the effect of quinine and salicylic acid.

But the magical successes of antipyrin do not stop there. Recent researches have shown the great advantage to be obtained from its use in a great number of nervous affections or symptoms. Thus in migraine the effect is really surprising. Dr. Russell Forsbook gives it in fifteen-grain doses, three times, at intervals of twenty minutes, during the attack. Generally after the second dose the patient feels better, and the pain and depression, as well as the nausea, cease. If the antipyrin is given during the prodœmata of an attack, a single dose is ordinarily sufficient. If the symptoms have not entirely disappeared after three doses, the author gives a fourth at the end of four hours. We can further cite the case of a friend of ours who is subject to migraine returning two or three times a month. When these phenomena appear, he takes a gramme of antipyrin, and about twenty minutes or half an hour after they disappear almost completely, so that our friend can eat; that which he could not do before using this remedy.

In this last case antipyrin seems not only to diminish the pains but to shorten the attacks of migraine and lengthen the intervals between them. The pulse, which is generally slow during these attacks, often regains its strength and rapidity. It is always to be feared, as Dr. Jennings has shown, that it may be necessary, in rebellious cases of frequently returning attacks, to increase the dose, the patient accustoming himself little by little to the medicine and not deriving as beneficial effects. The relations existing between migraine and epilepsy have induced the authors to try antipyrin in the latter malady. Dr. Forsbook has given it, with good result, for the headache which acccompanies the paroxysm. He has further used it in the cases of two persons presenting the aura, and in one case his administration prevented the attack. These experiments ought to be repeated in order to confirm this action of antipyrin, as it would be a great help in these cases.

Dr. Jennings cites three cases of neuralgia in which he prescribed this medicine. In one of them (double sciatica), he obtained no effect; in the second (brachial neuralgia), hypodermic injections produced excellent results. Finally, in the third, that of a woman presenting very nearly the same symptoms as the former, but with atrophy of the arms, one dose of one gramme of antipyrin given internally was entirely successful. In a case of herpes zoster, it caused a rapid cessation of the pains which accompany this affection.

However, this remedy has met with no success in a case of locomotor ataxia. The same author wished to use it in the case of a morphine eater, in order to substitute it for the poison which he continually absorbed, but he met with no success. In sea-sickness it gives excellent results.

Dr. Jennings tried the good effects in the case of an artist who, as the result of long labor in his studio, exhausting himself in working to finish a picture, scarcely eating, had entirely lost appetite and become sleepless. He suffered from violent attacks of colic, with a sanguineous diarrhœa; he presented intense cerebral excitement, with slight delirium. It was only with great trouble that these symptoms were quieted with morphine and the patient began to demand growing doses, when antipyrin was administered, which made them close rapidly.

Dr. Brayton (of Corry) gave it with success in the case of a primipara who had presented uterine inertia and symptoms of puerperal septicæmia, and who had suffered for six days with insomnia. This doctor gives antipyrin mixed with antifebrine, the first in a dose of six grains; the second in a dose of two grains. Sleep returned, the fever fell and all the septicæmic symptoms ceased little by little.

In gout, the results of antipyrin do not yet seem to be conclusive; however, in one case, Dr. Jennings saw an attack of this disease cured by the administration of 4 grammes each day. Antipyrin sometimes causes symptoms against which we should be forewarned, especially in the cases of young women and girls, as related by Dr. Forsbook and Dr. Whitehouse (of Santiago, Cuba). In the case of a young girl who had taken intentionally a dose of seven grains and a half, the latter was witness of the following symptoms: Two minutes later the patient was taken with gastric pains which became unbearable, and were accompanied with fear, cries, and dreadful contortions. These phenomena lasted three or four minutes, when a severe nettle rash appeared on the whole body, accompanied by violent itching. The patient lost conciousness; an injection of one-sixtieth of a grain of atrophin put an end to the phenomena.

Were these symptoms due to the antipyrin or to foreign substances mixed with it?

In support of the latter supposition it may be said that a great number of doctors, as well as the patients, complain of the odor of benzine which it carries with it. Dr. Jennings reports having found in London a sample of this medicine which was entirely inodorous.

In No. 12 of Vol. 216 of *Schmidt's Jahrbücher*, Germain Sée, the "prophet" of the nervine antipyrin, is reported to have spoken with great warmth in the Paris Academy of Medicine about the curative powers of this remedy.

In the especially severe headache of youth, the antipyrin treatment is entirely efficacious.

In 12 patients of from 13 to 19 years of age, the headache grew less after two or three days (2 or 3 gms. of antipyrin being given daily), and disappeared entirely after six to eight weeks' treatment.

In 42 cases of migraine 1 gramme of antipyrin at awaking and 1 gramme one hour later caused the attack to cease so that the patients could go about their business the same day ; occasionally the second dose was superfluous. By the continued use of this remedy—1 gramme a day—the intervals between the attacks became greater. In only four cases did symptoms arise which interfered with the treatment—twice disturbances of the stomach, once dizziness, and once excitement.

Of seven cases of neuralgia of the 5th, one remained uncured, two were cured, four were at the time on the way to recovery.

The last four had had the disease many (twelve to eighteen) years. After two months' treatment (5 grammes of antipyrin daily, and in addition subcutaneous injection of an antipyrin solution 0.5 grammes to water 1.5 gramme) a real improvement was perceptible.

At the next meeting, Dujardin-Beaumetz spoke on antipyretic remedies considered as sedative to the nervous system; stated that acetanilid should be classed with antipyrin as a pain-quieting remedy, while salol shows a similar but weaker action. Sée replied that he had known of acetanilid for a long time, but considered it a doubtful remedy on account of its action on the blood.

Dujardin-Beaumetz replied that the cyanosis produced by acetanilid was not dangerous. If patients were made blue by the action of acetanilid, in like manner were they made red by the action of antipyrin. A week later Germain Sée delivered a lecture upon the therapeutic applications of antipyrin, compared with antifebrin.

In acute and chronic articular rheumatism antipyrin is useful. But while in the feverish forms salicylic acid appears to gain the victory, in rheumatism without fever antipyrin is far ahead. Sée has treated thirty cases with antipyrin, 0.3 grammes, subcutaneously three or four times daily, besides three or four grammes by mouth; and in all he observed rapid diminishing of the pain and increase of mobility.

This remedy is to be recommended for long continued use more than salicylic acid, because it is entirely harmless. Even in rheumatism with fever it is more useful than salicylic acid if there is any cardiac weakness. Acetanilid accomplishes in no case more than

antipyrin; salol less than all other remedies. Upon chorea none of these anti-rheumatic remedies have any effect. In old chronic articular rheumatism, even in arthritic sicca, evident improvement occurs under the use of antipyrin. The same holds good of gout.

In lumbago, intercostal neuralgia and sciatica, the "complete" antipyrin treatment (subcutaneously and internally) was used for the most part with very good result; of 23 cases of sciatica two only did not yield to the antipyrin treatment, or to any other form of treatment.

For the pains of tabes Sée gives preference to antipyrin rather than acetanilid, because it has no poisonous action.

Sometimes (once in twelve or fifteen cases) after weeks of treatment, antipyrin produces an urticaria or erythema; things which are not to be compared with the formation of methæmaglobin. In all forms of neurites, in the neuralgia of diabetes and of Zoster, if antipyrin relieves the pain, though it cannot stop the progress of the disease, still it stifles " the cry of nature."

This property of antipyrin is shown in a wonderful manner in the colic produced by the passage of biliary and renal calculi. It is in such cases to be preferred to morphine as it does not interfere with the secretion of the bile, the movement of the intestines, or the excretion of urine. The passage of the calculus takes place without real pain to the patient if antipyrin injections are given at the right time; with these, administrations by the mouth should be united as soon as the stomach will allow it. For these last, larger doses are necessary.

Sée mentions further, membranous dysmenorrhœa, acute metritis and the various intestinal colics.

Finally Sée goes deeply into the " heart-pains." Although there is no remedy to hinder the advances of atheroma, still the attacks of angina pectoris can be successfully combatted by one or more injections of antipyrin, and so can the pain of aneurism, by longer antipyrin treatment.

Dr. S. A. Fränkel of Breslau confirms the statement of Sée in regard to the efficacy of antipyrin by the subcutaneous method in rheumatism, neuragia, otitis, enteralgias, biliary calculi, and asthma.

MEDICAL DEPARTMENT, UNIVERSITY OF BUFFALO; FORTY-SECOND ANNUAL COMMENCEMENT.

The twenty-eighth of February was the brightest day ever experienced in the history of the Buffalo Medical College. A larger attendance of Alumni than ever before noted, a greater number of distinguished guests from a distance, a more enthusiastic interest displayed by all, a more brilliant commencement, a greater feeling of relief after the most rigid examinations ever held, a better collection of papers at the Alumni meeting;—all these were notable features of a notable day.

It is not our intention here to go into details. The April number of THE MEDICAL PRESS will be devoted, so far as necessary, to the transactions of the Alumni Association and the papers read. We desire here merely to allude to the most conspicuous work done.

And, first of all, to the excellent committee of arrangements, consisting of Drs. Vandenbergh, Pryor and Bingham, must be awarded every credit and expression of grateful appreciation on account of the brilliant success crowning their arduous labors. The number of personal letters written by these gentlemen is to be reckoned only by hundreds. The amount of other labor and time which they freely gave to the performance of their task is very great; and we are sure we are only voicing the universal sentiment when we say that those who so much enjoyed the day have these gentlemen to thank for the opportunity.

The most important feature of the morning's work was the establishment of an Alumni prize of goodly amount as an encouragement for original research. Dr. Lapp ably presided over the deliberations of the Association, and will be succeeded next year by Dr. Harrington, whose energy and zeal are everywhere recognized.

In the afternoon session the audience hall was well filled, and we were pleased to note the presence of many whose faces are too seldom seen at medical gatherings. Last year we had to condemn severely the apathy of many men in Buffalo who would allow such an interesting collection of papers to go unlistened to. This stricture would be undeserved this year. We have no hesitation in saying that the Alumni Association's afternoon session is always *the* medical event of the year in Western New York. No such collection of papers is

ever read on any other occasion; and it by far excels in interest and value any society meeting in this section of the country.

Dr. E. N. Brush, of Philadelphia, first read a Memorial to the late Prof. J. F. Miner, which was not only richly deserved but came evidently from his deep affection for his former preceptor.

A paper on Possibility in Medicine was read by Dr. W. C. Wey, of Elmira, which was not only of great intrinsic interest but was in the matter of style and purity one of the most charming essays we have ever listened to.

Prof. E. L. Shurley, of Detroit, contributed a very able paper on Non-Typical Pneumonia, in which some very suggestive facts were brought out.

Dr. W. E. Ford, of Utica, read a paper on The Treatment of Peritoneal Adhesions by Electrolysis, in which he advanced this absolutely new method of attacking these most serious annoyances. In this matter the doctor certainly deserves the credit of priority, while his method bids fair to prove one of very great value.

Finally Dr. J. H. Pryor read an eloquent and touching Memorial to Dr. Rochester.

All these papers will appear in the April issue.

Another notable event of the day was the presence among his former pupils of Prof. E. M. Moore, of Rochester. His appearance provoked a storm of applause. The Council of the University signified its appreciation of his kindness in spending the day among his former associates by unanimously acceding to the nomination of the Faculty and confirming him as Emeritus Professor of Surgery.

We have thus but very briefly summarized the occurrences of the day, since we expect later to make a full report of them.

THE COMMENCEMENT EXERCISES.

At half-past seven Music Hall was amply filled by a bright and happy audience, who had assembled to enjoy these ceremonies. After prayer was offered by Bishop Hurst, Prof. Mann administered the Hippocratic Oath to the following-named candidates, who were afterwards presented to the Chancellor, Hon. E. Carlton Sprague, from whose hands they received their diplomas:

Chas. H. Andrews, Arthur L. Benedict, A. B., Amos F. Blanchard, Salina P. Colegrove, Ava M. Carroll, Thos. H. Davidson, Chas. H.

Farrington, Jos. B. Finucan, Geo. W. Gillette, Ph. B.; Oscar L. Harries, Chas. S. Jones, A. B., Chas. G. LeVesconte, Wm. E. McDuffee, Chas. D. McCarthy, Grant H. Simonds, Horace F. Smith, Chas. M. Smith, Herbert L. Smith, Richard H. Satterlee, Chas. B. B. Tweedale, T. Oliver Tait, Fred A. Wicker, Henry G. Bentz, Ira C. Brown, Edward Beck, Peter C. Cornell, Frank L. Cooley, Clark E. Ernest, Robert T. French, Jr., A. M.; Elizabeth Fear, J. Frederick Haller, Wm. McGregor Haynes, Hiram L. Knapp, Marcenus Mason, Horace J. Mann, Thomas Purcell, Chas. E. Sharp, Alfred W. Smallman, Ellen R. Spragge, Frank B. Storer, Edward H. Tweedy, Ransford C. Taber, Edwin L. Wood, W. Henry Woodbury, A. B.

As is customary with the Medical Department, the ten students who, on examinations, had ranked highest in the class were designated as on the Honor Roll; and as read by Prof. Mann it was as follows: Arthur L. Benedict, A. B., Robert T. French, A. M., T. Oliver Tait, W. Henry Woodbury, A. B., Fred A. Wicker, Oscar L. Harries, Alfred W. Smallman, Ransford C. Taber, Clark E. Ernest, Edwin L. Wood and Geo. W. Gillett, Ph. B.; Messrs. Wood and Gillett having been tie for the tenth place.

Those theses which through excellence and originality had obtained the highest encomiums and were deserving of honorable mention, were: Some Experiments on the Pneumogastric Nerves, by Chas. S. Jones; and, Bergeous Treatment in Bronchorrhœa, by W. Henry Woodbury.

Prof. Vandenbergh presented to the Chancellor the following list of candidates for the degree of Ph. S.:

Ralph E. Chase, Reuben S. Fowler, Jown J. Kreuz, Harry W. Patterson, Miss Rosa Schorp, Frank J. Wiltse, John P. Diehl, Paul Hebenstreit, Job J. Matthews, Edward J. Smith, La Verne O. Thompson, Harry W. Zeliff.

Messrs. John F. Burkhard, William C. Heussy, Otto W. Jaeger, Emil T. F. Stark, Louis L. Trowbridge, Elliott Russell, were compelled to wait for their degrees in Pharmacy, as they either were too young or had not studied the prescribed period of four years, although they had passed all required examinations in an excellent manner.

The Peabody Prize of $50 was awarded to Elliott Russell, who, after re-examination of the five most proficient students in Pharmacy, was adjudged the best. A prize of $25 was given to William C. Heussy for diligence and deportment. A similar prize was awarded to John P. Meidenbauer for highest standing during the junior year. Hon. Theodore Bacon addressed the graduating class. His was an erudite and masterly effort. During his remarks allusion was made to the enormous advances in medicine; how it had subjugated all other sciences as collateral branches, and how much benefit had been derived from the use of those instruments of precision, the thermometer, the stethoscope and the watch. He admonished the graduates that they had a mantle of new dignity thrown over them and that it carried with it an obligation to maintain its purity unsullied. The address to the Alumni was delivered by the Rev. Chas. N. Sims, Chancellor of the Syracuse University. His words were pregnant with bright thoughts and pertinent advice. After the benediction had been pronounced by the Rev. Dr. Chivers the assemblage dispersed.

After the exercises closed the Alumni Banquet took place at The Genesee. Two hundred and twenty sat down at the tables, and the company did not disperse till 4 A. M.

DEATH OF DR. STEELE.

Death has again robbed the local profession of one of its most promising junior members. After an acute and most painful illness of less than a week, Dr. Chas. G. Steele died on February 11th at his residence on Genesee street. To the younger medical professional associates he had endeared himself by his manliness, his good nature, his ability and his industry; while by young and old alike he was regarded as a man of great promise. To us his loss was a peculiarly sad blow, since under his business management THE MEDICAL PRESS OF WESTERN NEW YORK had greatly prospered.

His untimely death necessitates a change in the conduct of its financial affairs which will be duly announced. It will also partly explain the delay in the appearance of this March issue.

At a special meeting of the medical staff of the Fitch Provident Dispensary, the following preamble and resolutions were adopted:

WHEREAS, An untimely death has removed from this staff our friend and associate, Dr. Chas. G. Steele, a most cheerful and courageous helper, therefore be it

Resolved, That this dispensary has lost in him a most conscientious worker, who by his many noble and manly qualities, his great faithfulness, untiring industry, and his genial loving spirit has endeared himself to us all.

Resolved, That we extend to the family of the deceased our most heartfelt sympathy in this their hour of bereavement.

Resolved, That a copy of these resolutions be transmitted to his family as a just tribute to the memory of the departed and as a token of our respect.

ERNEST WENDE,
EDWIN H. NORTON,
LEON F. HARVEY,
Committee.

* * *

WE have received the Annual Report of the New York Post-Graduate Hospital, which is connected with the Post-Graduate School. This hospital is not only a direct charity to its patients, but is of the greatest service to the profession, not only of this city and State, but of the entire country; for the medical men who attend the courses of the Post-Graduate Medical School are here instructed in the most minute and important details in the practical treatment of disease. We have had opportunities to see how thorough is the instruction here afforded, and take pleasure in commending the school to all interested.

* * *

THE WILLIAM F. JENKS MEMORIAL PRIZE.—The first triennial prize, of two hundred and fifty dollars, under the deed of trust of Mrs. William F. Jenks, will be awarded to the author of the best essay on "The Diagnosis and Treatment of Extra-uterine Pregnancy."

The prize is open for competition to the whole world, but the essay must be the production of a single person.

The essay, which must be written in the English language, or, if in foreign language, accompanied by an English translation, should be sent to the College of Physicians of Philadelphia, Pennsylvania, U. S. A., addressed to Ellwood Wilson, M. D., Chairman of the William F. Jenks Prize Committee, before January 1, 1889.

In connection with this note of College proceedings it will be well to announce that The SPRING COURSE for 1888, opens March 5th, and will continue for eight weeks. This is made very largely clinical. It is entirely *free* to students and graduates, save the ordinary matriculation fee for those who have not paid it, and the ordinary fees for dissecting material and laboratory work.

* * *

With the advent of the new year two new medical journals have made their appearance. One is *The International Journal of Surgery and Antiseptics*, edited by Dr. M. J. Roberts, of New York, devoted to general and special surgery, and appearing in quarto form. The initial number is profusely illustrated and contains sixty-four pages. It is to be issued quarterly at the low rate of one dollar a year. If the numbers to follow are equal to the first it ought to find a ready sale.

The Brooklyn Medical Journal is the title of a handsome octavo to be published monthly in Brooklyn. When we remember that this is a city of seven hundred thousand inhabitants and that it has never had a medical journal (save for a few years the *Annals of Anatomy and Surgery*), the wonder is that one was not founded long ago. Chicago with a population nearly as great has eight, Cincinnati four, and St. Louis nine. It is intended to be the organ of the medical societies of Brooklyn, and its first number is a credit to all concerned.

* * *

We have received from Lea Bros. & Co., of Philadelphia, a couple of specimen plates from Dr. R. W. Taylor's forthcoming *Clinical Atlas of Venereal and Skin Diseases.* It is to be issued in eight parts, folio size, with fifty-eight full-page plates in all, containing one hundred and ninety-one figures collected from the best sources, many of them being original. The work is to be sold only by subscription, at $2.50 per part. So far as we may judge by the specimens in hand the work will richly deserve the patronage of the profession at large.

Time is the greatest of tyrants and extortioners. As we go toward age he taxes our health, our limbs, our faculties, our strength and our features.—*Ex.*

Correspondence.

LETTER FROM VIENNA.

VIENNA, January 15, 1888.

TO THE EDITOR OF THE MEDICAL PRESS:

My Dear Doctor—In a previous letter some courses were mentioned which the student of surgery might find it profitable for him to take. A few words more may not be amiss concerning some operative surgical courses given here. They are given by Salzer and Eiselberg, the first and second assistants, respectively, of Billroth, and by Hochenegg and Ullmann, who hold the same positions under Albert, and are so thorough and practical that no one should miss the benefits derived from taking them. They are of two kinds: the so-called typical and atypical. The distinction between typical and atypical operations, as made here, is often not easy to see, but, in general terms, the former may be made to include amputations and resections of the upper and lower extremities, ligation of principal arteries of the same, tracheotomy and a few others, and the latter, resections of the bones of the head and trunk, ligation of arteries in the same region, amputation of the breast, lithotomy, abdominal operations and the like. Each member of the class makes all the typical and many of the atypical operations; the latter being naturally restricted because of the enormous amount of material that would be required were every one to operate. Every operation is ably demonstrated, and a good drilling in surgical anatomy and technique is the natural consequence.

The clinics of Billroth and Albert should, of course, be attended. Each has a great abundance of clinical material; in Albert's, for instance, about 8500 patients being treated annually. Of the two, Albert's is the more largely attended, for the reasons, probably, that he is a better lecturer and teacher, and that his cases, being ambulatory to a great extent, are better adapted to the needs of the average student; whereas Billroth performs the rarer and more difficult operations, largely to the exclusion of the simpler. Albert having been for a long time the assistant of Billroth, as might be expected, much resembles him in his work, and yet there are many points of

difference, even in the choice of anæsthetics, Albert using pure chloroform while Billroth employs an A. C. A. mixture. The overcrowded condition of these clinics, however, makes them in many ways less desirable than those of the "lesser lights," who do thorough and good work.

In surgical pathology every opportunity, in the shape of good laboratories, abundant material, and able demonstrators, is afforded. Kundrat's laboratory is, perhaps, the most popular; and certainly one could hardly wish for more and better equipments to aid him in the study of pathology. It is limited to fifteen places and you must apply a long time in advance to get one.

There are so many excellent laryngological courses that it requires no little time and thought to decide upon which one to take. Schrötter's is, probably, the one best adapted to those making laryngology a special study; as he gives a larger proportion of lectures, thus mingling theory with his clinical instruction. His course is crowded to overflowing, especially since his recent call in consultation upon the Crown Prince's case. Chiari's course is another capital one, and is always filled for some months ahead. Störk's clinic is admirably suited to those who desire practical clinical work in diagnosis and treatment, at the expense of theory, lectures being of comparatively infrequent occurrence. The number of cases seen daily is very large, and the variety of diseases correspondingly so.

Knowing that you are interested in the subject of laryngeal cancer and its treatment, it will, perhaps, not be out of place to give you a synopsis of some remarks, made a few days ago, by Störck upon this subject, and which were called forth by a case of laryngeal papilloma which presented itself at the clinic. After dwelling at some length upon the clinical aspects and pathology of papelloma, which latter was characterized by a great proliferation of epithelial cells, he proceeded to divide these tumors, clinically, into two varieties: the one form sometimes occupying a large extent of the mucous membrane, and usually borne throughout life without causing very much difficulty or tending to shorten the patient's existence; the other form frequently limited to a small space and undergoing changes after a year or so. These changes consisted in a gradual diminution in the size of the separate projecting parts (Zapfen); the

tumor loses its free movability and finally becomes sessile; the part connecting the tumor to the base finally becomes so thin that it mortifies, the process being the same that is seen in the life of the epithelial cell on the surface. On the base of the tumor the separate parts (Zapfen) begin to conglomerate, and the line of demarcation between them becomes lost; small nodules grow out from the mass, movability is further decreased and the consistency firmer. The color changes from white or yellowish white to dark red, and the vascularity of the tumor greater. This dark coloring is a positive pathognomonic sign of a change in structure. Microscopically we now find the muscle fibers pulled apart and infiltrated with epithelial cells which also fill the walls of the vessels. When of the original tissue only a remnant is left, then begins the change from papilloma into carcinoma. All this to show Störck's opinion upon the relation between the two diseases, and which, he claims, his experience confirms.*

The history of a case occurring in his own practice was then given, which supported his theory and illustrated the value of radical measures. The patient had a globular papilloma upon the anterior third of the left true vocal cord which was extirpated. In two years recurrence took place and again removal of the growth. Eight years subsequently the patient again appeared with the tumor which now showed carcinomatous change. Extirpation of the larynx was proposed but not accepted. Soon after symptoms of suffocation from increased size of the tumor caused the patient to return for operation, in the meantime tracheotomy having been made by his physician where he lived. He was taken to Billroth, who absolutely declined to make the radical operation. The patient again went home soon to return begging for operation, which Störck himself performed. The patient made a speedy recovery, and so far (three years) has continued well. The diagnosis was confirmed by a microscopical examination which revealed epithelial carcinoma. An interesting and rare feature of the case was that phonation was quite recovered through a peculiar arrangement of the ligaments and musculature remaining.

*Since writing the above I have learned that the subject appeared previously in an extended form in the *Wiener Med. Wochenschrift* (Nos. 49 and 50, 1887), where any interested can find it.

My stay in Vienna is fast drawing to a close, and I shall leave it with many regrets. Added to its almost perfect opportunities the city affords many attractions. The Viennese themselves are courteous and agreeable, and one soon excuses the Bohemian whose egotism and rudeness come from ignorance. It must be confessed that the Russian element is not an agreeable one to deal with. They are the personification of greediness and aggressiveness, and if one may judge of the nation as a whole from its medical students, who throng here, posterity will, perhaps, find it possessing the earth, with ultimate designs upon heaven. This, however, does not interfere with the study of medicine here, and to all who contemplate a foreign trip for this purpose Vienna can be confidently recommended as a center were a maximum amount of work can be done with a minimum waste of time. May the new year be a prosperous one for The Medical Press.

Sincerely, John Parmenter.

Society Proceedings.

ERIE COUNTY MEDICAL SOCIETY.

Reported by Chas. G. Steele, M. D., Secretary.

The annual meeting of the Erie County Medical Society was held Tuesday, January 10, in the Y. M. C. A. building. The president, Dr. O. C. Strong, of Colden, occupied the chair, and Dr. William H. Thornton was at his post as secretary.

The minutes of the last meeting were read and approved. The committee on membership made its report, and a number of new members were elected.

Dr. Strong read his annual address, which was brief, and which reviewed the past work of the society.

Dr. E. Storck, chairman of the Board of Censors, read their report. In it he showed that Sec. 5, Art. VI. of the By-laws, which provides for the examination of medical students by the censors, had been violated by a number of the members. In fact only one student has received a certificate, after passing a satisfactory examination. The fines imposed upon Drs. J. C. L. Cronyn and J. S.

Armstong were reported as unpaid. The report stated that there was still considerable "quackery" being practiced in this county, and promised that the censors would put an end to it all.

The report was laid on the table temporarily, and when it came up for discussion Drs. Storck, Pohlman, Hopkins, Crego, Lynde and Mynter discussed it.

The treasurer's report showed a handsome balance.

Dr. J. B. Samo made a brief report concerning the library of the Society.

The election of officers resulted as follows:

President.....J. D. Hill.
Vice-President.....R. L. Banta.
Secretary.....W. H. Thornton.
Treasurer.....F. W. Abbott.
Librarian.....J. B. Samo.

Board of Censors.—Edward Storck, *Chairman;* H. R. Hopkins, P. W. Van Peyma, A. R. Davidson, Walter D. Greene.

Committee on Membership.—T. M. Johnson, E. T. Dorland, A. Dagenais.

After the transaction of minor business the Society adjourned.

BUFFALO MEDICAL AND SURGICAL ASSOCIATION.

Meeting of Tuesday, January 3, 1888.

Reported by Chas. G. Steele, M. D., Secretary.

Dr. Coakley presided. There were sixteen physicians present.

Dr. Park exhibited a patient who had suffered fracture of the patella, and which he wired together, with perfect restoration of motion and recovery. This was one of three similar cases in which there had been perfect restitution of function.

Dr. Park read a paper entitled, "Fracture of the Neck of the Femur," and showed a number of interesting bony specimens. He reviewed the anatomy of the parts, gave the signs for recognizing fractures, including the various measurements, and showed how, according to circumstances, it is possible in these cases to get bony union, fibrous union, or no union at all.

Discussion: Dr. Mynter thought the nearer to the head of the bone the fracture occurred the greater the danger to life, but the greater likelihood there would be of getting good union.

Dr. Bartlett asked for the best treatment for patients over sixty years of age.

Dr. Mynter related the case of a man who in some way injured his hip. A prominent surgeon pronounced it a dislocation forward of the head of the bone. The man died some time afterward, and a post-mortem was held. A fracture of the neck of the bone was found.

Dr. Park agreed with Dr. Mynter that the nearer the head the fracture occurs the worse the prognosis as regards life. The treatment in all cases is to keep the patient alive, and get the best union you can. In answer to a question of Dr. Bartlett he said it was good practice to wire the fragments of a broken patella together if perfect antisepsis was carried out.

Under the head of voluntary communications Dr. Park related two cases of abdominal surgery, which had recently occurred in his practice. In the first there was obstruction of the bowels, following long after typhoid fever. He opened into the abdominal cavity and found, in addition to peritonitis, a perforation of the intestine in the right iliac region. He sewed up the perforation and punctured the intestine to let out the accumulated fluid fæces. The patient died from shock. A month ago he operated for umbilical hernia on another patient, a woman. She progressed very well for ten days; the wound healed, but later, owing to her over-exertion and recklessness, the wound opened and there resulted a fistula connecting with the bowel, through which fæcal matter passed. The patient was clamorous for an operation, and it was performed on December 29, 1887. The old adhesions were first removed, and two blind ends of intestine were found. An inch was cut from each side, and the ends sewed together with two rows of Lembert sutures. The woman rapidly recovered without a single bad sign.

Dr. Mynter told of a young man whom he was called to see. He diagnosed strangulation of the intestine. There was vomiting, but no peritonitis. After waiting several days the man was brought to the General Hospital and a laparotomy made. In the left iliac region the intestine was firmly bound down by organized lymph. The man died as the result of suffocation during the act of vomiting a quantity of fluid fæces. Dr. Mynter was sure he would have

recovered had the operation been performed during the first twenty-four hours.

Dr. Van Peyma related a unique case of labor, where the child's head, in passing through the vulva, tore a strip from its posterior surface, attached on both sides, under which the head was born.

The Association adjourned.

Clinical Lecture.

PROF. PARK'S SURGICAL CLINIC, BUFFALO GENERAL HOSPITAL.

Reported by W. H. Bergtold, M. D.

1. Sarcoma of thoracic wall. Exsection.

January 21st, F. C., male—aged 34. This patient had consulted the lecturer in 1886, desiring his opinion respecting a new growth in the left leg. The following history was elicited at that time: Nearly twenty years before (1865) he had bruised his left leg. A few months later he noticed a small hard nodule about the size of a pea on the middle of its outer aspect. This lump steadily increased in size during the following fifteen years. Its dimensions at the end of this period seemed to become more rapidly augmented, continuing the same ratio of growth when the speaker first examined it. A diagnosis of sarcoma was given, and amputation at the knee advised. Dr. T. J. King of Machias, N. Y., under whose care he had been, amputated as advised, a few days later. A rapid and uninterrupted convalescence followed. The patient again consulted Dr. Park on January 20, 1888. A small firm tumor about as big as a hen's egg had appeared during the previous few weeks on the left anterior thoracie wall, situated a little below and to the outer side of the the nipple. The growth had clearly defined edges, had not involved the overlying skin, had induced no glandular enlargement, but was tender and painful on manipulation. More or less severe pain had been experienced in the region. Physical examination of lungs gave normal expansion and respiration and vocal sounds. No dullness could be detected anywhere over chest. General condition good. Operation. Ether was used and during its administration Prof. Park remarked that no promise of cure or ultimate recovery

had been held out to the patient; that he had been plainly made aware of the conditions which might be found to exist and the dangers attendant upon an operation. He had consented to operate only after earnest solicitation on part of the patient. The speaker alluded to the probabilities as regarded the tumor's type. It might be, he said, a fibroma, a chondroma, but was in his estimation, a recidive of the old sarcomatous trouble. He proposed, if possible, to separate the affected ribs from their internal pleural and periosteal linings, leaving them to maintain the pleural sac unaltered. He hoped that the growth had not disturbed this cavity. After proper antiseptic preparations were made, a linear incision was carried down through the superficial structures to the tumor, following in a measure the direction of the ribs. The non-adherent skin was held aside while the operator endeavored to separate the nearest involved rib from its internal periosteum and the pleura costalis. In the effort it broke. A spicula of bone penetrated into the pleural cavity, admitting air with it. With a condition of pneumo-thorax such precautions as had been taken were unnecessary. The operator therefore addressed himself to rapid exsection of the sarcomatous mass. The introduced finger discovered that the growth was protuberant into the thoracic cavity, exceeding by considerable the external portion. Without any delay the operator removed the entire structure, taking a portion, as shown by a subsequent examination, of the fourth, fifth, sixth and seventh ribs; in the aggregate a surface of thoracic wall about three and one-half by five inches was lost.

In severing all its connections Dr. Park was compelled to ligate and detach an adhesion of the lower border of the upper lobe to the internal tumor. A beautiful and instructive exhibition of the pericardial sac now presented itself, giving with distinctness the cardiac movements. An examination, both digital and ocular, showed many disseminated metastatic nodules in the lung. It was hopeless, the operator remarked, through their number, to attempt their removal. The external inverted T-shaped wound (a second upward cut having been added to the first) was now closed with continuous cat-gut sutures, and an iodoform and sublimate dressing applied. Toward the close of the operation, although no respiratory alterations had been noticed, the pulse gave evidences of shock, compelling the free

use of stimulants hypodermically. When taken from the clinic his face was slightly cyanosed, pulse 140 and respiration 40. Regained conciousness within an hour and complained of great pain, which was relieved by the exhibition of morphia hypodermically. 101° was the highest temperature observed during the succeeding five days. Respirations fluctuated between 30 and 50. For two or three days there was to be heard over the left lung, especially its upper portion, considerable respiratory murmur, evincing that some dilatation and use had followed the lungs' complete collapse. Nourishment was taken during the entire time without distress. At times his condition as a whole was quite favorable and encouraging. However, death occurred from heart failure on the seventh day after the operation. *Post-mortem:* The left pleural cavity was found filled with sanguinolent serum, but without the slightest odor of decomposition.

2. *Chronic ostitis of tibia—Ignipuncture.*

J. M., German. Family history excellent; denies any specific trouble. Six months ago while walking he slipped and struck his right ankle heavily against a block of wood. He immediately experienced such severe pain that he was hardly able to reach home, although it was but a short distance. The ankle did not swell. In spite of treatment there had been no relief from pain since the accident, and during all the time he has been unable to bear his weight on the disabled member. Pain much worse at night. Examination on entrance; foot not swollen. A well localized spot of tenderness on the lower end of the tibia was readily made out. From this point, he said, the pain extended across the dorsum of the foot. Considerable periosteal thickening over the spot of tenderness could be felt. Chronic ostitis was diagnosed. Operation; ether. Dr. Park wished to employ ignipuncture. He, therefore, in order to avoid burning the integument, made a short, straight, incision over the lower end of the tibia, on its minor surface.

This wound divided all structures between the skin and the bone. The heated Paquelin cautery was thrust into the bone two or three times, to the depth of a quarter of an inch. The wound was packed with oxide zinc gauze. Three weeks later the wound then made was filled in and closed by granulations. The steady, persistent

pain had all been relieved, while there remains, however, some slight pain when extension or flexion is made. Range of motion in joint is somewhat limited.

3. Sarcoma of orbit. Removal.

February 4th, A. W., female, aged 6. Patient sent to hospital by Dr. Abbott. Excellent family history. Personal health has always been good. Seven weeks ago the child's mother noticed that the left eye protruded more than usual and that it was pushed downward as well as forward. This deplacement has rapidly been increased. Patient has lost appetite and complained of severe pain in the eye and corresponding frontal region. Condition before operation: Left eye protruding from orbit, displacement occurring downward and forward, so that the globe almost lay on the superior maxilla. The extruded mass compared in size with an English walnut. Optic disc appeared choked, fingers were counted at ten feet. Tears secreted normally while the ocular muscles had only suffered some apparent impairment of motility. Diagnosed as retro-ocular orbital sarcoma. Operation; chloroform. The entering incision was made parallel with the superciliary ridge and just below its free edge. A short dissection through the superficial fascia and cellular tissue brought the growth into view, proving its extra-conjunctival origin. Its connections to the bulb and surrounding soft tissues occasioned no difficulty during the removal. The tumor had its origin from the periosteum of the orbital roof, and extended backwards to the apex of tha orbit, where it even seemed to enter the middle fossa of the skull through the sphenoidal fissure. All accessible portions were cleared away, carrying with them the major portion of the periosteum of the orbital plate of the frontal bone. Wound irrigated with sublimate solution, cat-gut drainage inserted and wound closed by cat-gut sutures.

The eye assumed a nearly normal position and appearance. Over all was placed a sublimate dressing. Result seems to be excellent.

THE deaths from patent medicines are estimated by a writer in the *British Medical Journal* to be about one hundred and fifty thousand annually.

Book Reviews.

A Text-Book of Therapeutics and Materia Medica. By Robert T. Edes, A. B., M. D. Lea Bros., Philadelphia: 1887.

The aim of the author, as stated in the preface, is to present in this book a concise, practical, working view of the present state of Pharmacology and Therapeutics, which shall select for the overburdened student and young practitioner the more important and immediately applicable of the details which properly find a place in the large and encyclopædic treatises. The aim of the author is a good one and the fact that he has given conclusions rather than discussions will be a boon to a great many students and physicians, even though later they may disagree with certain of those conclusions. His remarks on diaphoretics and their uses are particularly good. Speaking of the modes of preparing pepsins he says: "A simple glycerine extract of the stomach has been found efficient and durable in the physiological laboratory, and it is somewhat singular that it has not been utilized as a pharmaceutical preparation." He makes the very common mistake of recommending the use of pancreatized milk for the feeding of infants; not recognizing the fact that by such feeding the digestive powers are weakened by cessation of natural function. The mode of action of bitters is well explained in the following words: "Chemically speaking, bitters do not at all assist the process of digestion, either in the test-tube or in the stomach; but, on the contrary, distinctly retard it. It is probable, however, that in small doses, and when given to persons with feeble digestion, they call out by their action in the stomach and mouth the digestive fluids, and excite a feeling akin to hunger. It is very probable that a portion at least of the benefit of bitters is lost when they are so administered as not to be tasted." In speaking of menthol, Dr. Edes makes no mention whatever of its antiseptic properties nor of its use by inhalation in pulmonary tuberculosis, for which the late experiments of Koch would seem to indicate it is the best of remedies. Another defect is the omission of any reference to the use of carbonate of ammonia in acute pneumonia; for which, if it be given from the start and continued through the course of the diseases, it is almost a specific. His remarks on the indications for

opium and morphine are in the main good, but his only remarks on the use of morphine in cholera epidemics are misleading, for he mentions only "well attested inefficacy or even deleterious effect" of morphine given hypodermically, without saying that, given by the mouth or rectum, it is the mainstay of treatment. Dr. Edes' views in regard to the different preparations of iron and the indications for their use are especially good. With reference to dieting for overcoming obesity nothing could be more physiologically sound and rational than his statement that "a well-balanced diet will be the least favorable to an over-production of fat, and the limitations should be rather in regard to the whole quantity, than carried out solely in any one direction." His chapter on foods is throughout very good and well worth a careful perusal. An excellent feature of the book is the alphabetical list of poisons and their antidotes with which it closes. On the whole, while it cannot, of course, be compared with such standard treatises as those of Brunton, H. C. Wood and Bartholow, as a text-book for students and young practitioners Dr. Edes' work is to be highly recommended. D. R.

PHOTOGRAPHIC ILLUSTRATIONS OF SKIN DISEASES; AN ATLAS AND TEXT-BOOK COMBINED. By Geo. Henry Fox, M. D. Forty-eight colored plates. Second Series. New York, E. B. Treat: 1888. Parts I. and II.

The following portions of the publisher's announcement of this important work deserve a place here. It is now eight years since the first appearance of "Photographic Illustrations of Skin Diseases," by Dr. George Henry Fox. The extensive sale of this work, and its acknowledged prestige and appreciation by the profession have proven conclusively the value of photography in accurately portraying the various phases of cutaneous disease; and the continued demand for these plates is ample evidence of their merits and their adaptation to the wants of the general practitioner. This, the second series, is a complete remodelling of the subject in which a new and better class of illustrative cases are presented and the total number increased fifty per cent., including several important affections which were altogether omitted in the former work, all now beautifully illustrated, making the series as complete as possible. In place of the few pages of descriptive matter which accompanied the original plates, a notable enlargement of the text is a leading feature of

the present work. The diagnosis and the treatment of skin diseases are especially considered, and the text, consisting of upward of two hundred quarto pages, is designed as a complete work on dermatology. In its present form the work appears as a combined atlas and text-book. As heretofore, the plates are made from photographic negatives taken from life. The artotype reproductions of these negatives are made by Mr. Edward Bierstadt, and the hand-coloring of the plates, an important feature of the work, has been entrusted to the well-known medical artist, Dr. Joseph Gaertner, formerly a student under Hebra in the General Hospital of Vienna. In the two parts already issued author and publishers have certainly kept every promise made by them. The artotype process permits perfect fidelity in everything save color, while the colorist has not permitted himself to drop into the common pitfall, but has executed his share of the task with discriminating taste. The fault common to almost all such atlases is that of over-coloring, the temptation being very strong to make tints too bright or heavy. In no instance can this charge be made against Dr. Gaertner's work. With regard to the text we find simply an epitome of diagnosis and treatment in which not a word is wasted. The directions are plain and terse, and no remedies beyond the practitioner's reach are advised. The work certainly is one to be in every way commended, and should do much to disseminate a knowledge of skin diseases among the profession at large. It will be completed in twelve parts, which are sold only by subscription at the low price of $2.00 each.

A Synopsis of the Physiological Action of Medicines. By L. Starr, M. D., and J. B. Walker, M. D., 3d Edition, 16mo. Pp. 72. Philadelphia: P. Blakiston, Son & Co. 1888. Price 75 cents.

This little pocket-guide for students comprises a synopsis of the physiological action of thirty-four of the commonest and most important drugs, which may well be committed to memory by every student. Just as rapidly as our students can be taught to fit the remedy to the case, to make the therapeutical punishment fit the physiological crime, they will emerge from the domain of empiricism, which some men never forsake, and become rational practitioners, eclectic in the noblest sense of the word. And this little manual may well help along toward the attainment of this most desirable end.

Rectal and Anal Surgery, with a Description of the Secret Methods of the Itinerants. By Edmund Andrews, M. D., LL. D., and E. W. Andrews, M. D. Pp. 111. Chicago: W. T. Keener. 1888.

As the author says in his preface, the itinerant "pile-doctors" and quack specialists have done the profession a service in that they have compelled greater attention to a neglected subject. And he has certainly himself contributed an important item of knowledge to the general stock, since he has carefully sought out and exposed their secret methods, and shown them in whatever light they deserve. The most valuable part of this work, then, is that devoted to a discussion of the secret methods above alluded to and the reflections naturally growing out of it, as well as the valuable anatomical and physiological knowledge elicited during a study of the same. Some valuable information is given concerning the so-called pockets and papillæ of the rectum. While the book is throughout practical, like its author, it is simply a manual of rectal therapeutics without regard to etiological or pathological discussions. Its most valuable feature is not so much the original portion, though it is fairly good, but the part in which all the claims and practices of itinerant specialists and vendors of "systems" for treating rectal affections are considered at length. No one has shown up these wretches so well as Dr. Andrews, and we join with every reader of the book in thanking him for it. We may add, also, that we are glad to see a western author resorting to a western publisher. There is no reason why all the good things of medical literature should emanate from eastern publishing houses.

Chemical Analysis of Healthy and Diseased Urine; Qualitative and Quantitative. By T. C. Van Nüys, Prof. of Chemistry, Indiana University. Cloth, illustrated, pp. 187—$2.00. P. Blakiston, Son & Co., Phila.: 1888.

This volume, gotten up in Blakiston's usual almost faultless style, is intended by the author to occupy a place between the ordinary manual and the complete treatise on the subject. Both quantitative and qualitative tests are given *in full*, and the rationale of chemical processes is *fully* explained. Especial attention is given to processes peculiar to work in physiological chemistry. This, with descriptions of apparatus employed, manipulation and the preparation of normal solutions required, makes it a very complete and extremely useful book. The arrangement is admirable; the text clear and concise, and the illustrations fitting. It is but candid to say that it is as valuable a book as *any* physician may add to his working library.

Among recent discoveries of especial interest to the physician, is the influence of a class of vegetable ferments and their recognition as the causes of various abnormal conditions,such as colic,vomiting, nausea, diarrhœa and dysentery, which occasionally attend the administration of certain drugs. It appears that Frangula bark, when fresh, contains such a ferment in excessive quantities, and is, therefore, unfit for use until the ferment has exhausted itself—the process usually occupying several years. It also appears that Cascara contains some of this principle, and this fact will account for the occasional untoward effects of the drug, which have been observed as consequent on the employment of a number of its preparations heretofore in the market. Parke, Davis & Co. were the first to clearly recognize the principles involved, and by the application of such intelligent comprehension to formulate and adopt correct pharmaceutical processes and thus overcome all difficulties heretofore existing. As a result of their investigations, they now offer to the medical profession a fluid extract, a solid extract and also a concentration, all of which (designated as "Formula of 1887") exhibit only the desirable laxative and tonic properties, and being free from this ferment, are incapable of producing griping, nausea or any of the mal-effects above enumerated.

We call attention to the advertisement of the Rubinat Company. They are the sole importers of the Rubinat water from the Condal Spring in Spain. As a laxative or cathartic it is said to excel all natural mineral waters, and those who have been using the Hunyadi or other foreign waters will find it to their advantage to give this a competitive trial.

Eli Lilly & Co. of Indianapolis have issued recently an elaborate price list and catalogue of their goods which it will pay readers of The Medical Press to send for.

WANTS, EXCHANGES, &c.

To Exchange.—Part II., medical volume of The Medical and Surgical History of the War of the Rebellion, for either Part I. or III. medical volume, or Part II. surgical volume of the same work. Clarence King, M. D., Machias, N. Y.

To Exchange.—For other microscopic preparations. Mountings of nearly all the pathogenic bacteria. Also, cultivations of same in gelatine or agar-agar, for sale or exchange. Address the Editor.

The Medical Press
of Western New York.

Vol. III. APRIL, 1888. No. 4.

ELECTROLYSIS IN PERITONEAL ADHESIONS.

By W. E. Ford, M. D.
Utica, N. Y.

[Read before The Alumni Association, Med. Dep't, Uuiversity of Buffalo, Feb. 28, 1888].

The position occupied by electricity in thereapeutics has long been one of uncertainty, though it has been acknowledged to be a powerful agent. There are many causes for this. The foremost, perhaps, has been the impossibility of ascertaining from books accurate dosage, and whether uniform results can be obtained from a current of given strength and continued for a given period; that is, knowing the general laws of electricity and the general laws which govern sicknesses, there have been few rules formulated that lead one to expect definite results in well-known given instances.

While electricity has for years been recommended for various ailments, the student is left to choose methods and dosage and is left to suppose it amounts to about the same thing whether he uses a galvanic of great or small power or a faradic or static current. The text-books on this subject are most unsatisfactory, for aside from the diagnostic uses of electricity which are fairly well understood and which are described with some degree of uniformity by various writers, the discussion of its uses as a curative agent contains very little that is definite and satisfactory. Of course the instruments used have been improved upon very much within the past decade, but it is somewhat astonishing that with the advances made in our knowledge of the uses of electricity in the mechanical arts, there has been so little accomplished which has been turned to account in our profession. Another reason, perhaps, why electricity as a common therapeutic agent has not obtained a better place, is due to the fact that instruments which are of real service are troublesome to keep in order, require time to use satisfactorily, and a

certain amount of mechanical skill on the part of the physicians employing them. I am convinced, however, that these latter reasons would not stand in the way of a more general use of electricity if there were well established theories regarding its utility. Every one who has used electricity has been very largely an experimenter with an agent that was known to be powerful and concerning which there was very little authoritative literature to guide him.

Some recent advances in our knowledge have been brought about by the invention of instruments of precision which now enable us to work with more certainty and to record results with some uniform basis for our observations. Apostoli's researches, which have been so extensively published of late and with which all are more or less familiar, have given a new impetus to the study, and he has also described with minuteness instruments that have not heretofore been used. This contribution, which is somewhat fragmentary and incomplete, is based solely on my own experience and is intended rather as a suggestion of the possibilities that are opening for this agent than as a complete demonstration of the theories which I shall advance.

For many years I have been in the habit of using the stronger currents of galvanism in the manner described as central galvanism for the relief of certain fugitive pains that occur in the course of the disease known as neurasthenia or posterior spinal anæmia. I found that it was effectual in relieving neuralgic pains and also in relieving the condition of sleeplessness which so often accompanies these states. Incidentally I will mention one fact which, though not strictly within the limits of this discussion, seems to me to be striking, and one which I have not seen stated elsewhere. A very common symptom of incomplete and troubled sleep which so often accompanies posterior spinal anæmia, and which is followed the next morning by lassitude and soreness of muscles, is usually ascribed to the fact that the patient dreams of performing very hard manual labor during the night. This symptom I found was uniformly relieved and quiet and restful sleep secured by the use of the stronger currents of galvanism passed from the nape of the neck through the whole length of the cord. After a time I began to use the same current locally for abdominal pains occurring in the same nervous states and with fair success. It was the suggestion, however, of Dr. T. G.

Thomas, of New York, which first prompted me to try galvanism for chronic peritoneal adhesions. The suggestion was made in view of the great pain which had been termed neuralgia, though no reference was made as to the kind of current or the manner of application. The case which was sent to me with his suggestion seems worthy of brief mention in this place.

A woman about 30 years of age had general peritonitis some ten years ago, and following this about twice a year she had a recurrence of localized peritoneal inflammation laying her up from four to six weeks at a time; some five years ago, when I first saw her, she was unable to walk more than half a block without great pain, was unable to extend her arms upward because of the pulling sensations in the abdomen, and was practically an invalid from this cause. Her physician supposed she had some pelvic cause for this disability and accordingly sent her to Dr. Thomas. He found nothing wrong with the pelvic organs, but attributed her condition to extensive peritoneal adhesions. Blistering, iodine, massage and general constitutional treatment had failed to relieve her. I applied to the region on the right side where the pain was most intense, about opposite the umbilicus, a negative pole of the bichromate of potash battery and opposite this the positive pole dispersed over as large a surface of integument as possible, perhaps the size of one's hand. The strength of the current, as I have since ascertained but at the time did not know, was about forty milliamperes. This was continued for twenty minutes and repeated once a week. I think I was more astonished than the patient was at the rapid improvement and the ultimate complete relief given her after about six applications. She was then not only able to walk, but exposure to cold or extraordinary fatigue no longer produced any local symptoms, and she remained obsolutely well so far as all abdominal symptoms were concerned. I was so impressed with the success attending this case that I have since treated uniformly every case of chronic peritoneal adhesions in this manner. At first with rather a weak current and hesitatingly used; but, finding no ill-effect, gradually the current has been increased in strength until now I do not hesitate to use in my office a current of fifty to eighty milliamperes strength.

It is perhaps useless to discuss the *modus operandi* of this agent in these conditions, for after all our knowledge is merely speculative; but some hint as to the effect upon new connective tissue bands is obtained from our observation of electrolysis elsewhere, especially in the male urethra. Dr. Glass, my colleague at St. Luke's Hospital, who has made rather extensive observations in this line, assures me that the negative pole of the electrode adjusted over the stricture need not have a very strong current of etectricity in order to permanently and effectually destroy the bridle band with great certianty. In these cases the electrode is found covered with shreds of membrane and a very thin alkaline fluid, the result of the chemical decomposition. The surrounding healthy tissue is not so much affected, and it is fair to assume that these bands of adhesion, the results of inflammatory exudation having but slight vitality, due to the want of the circulatory apparatus, give way under the decomposing chemical action of the electrode, while the adjacent normal tissues, which are richly supplied with blood-vessels and nerves, are comparatively unharmed by the passage of the current. The tediousness and the uncertainty of the progress of a case of chronic peritonitis make it desirable that any method which promises even small results looking toward the removal of these adhesions should be recorded. If the further use of this agent gives results as uniform as it has been my fortune to see, then one can hardly estimate its value. Two of my subsequent cases had general peritonitis; one, four attacks, and one, three attacks, the relapses being at intervals of about six months. The relief has been rapid and permanent.

Remembering, as I do, the chronic tendency of doctors to relate cases, and the equally common tendency of all other doctors to be bored by the relation, I will ask your indulgence for only a moment more in detailing one rather remarkable instance that bears directly on this question. About a year and a half ago a woman was sent to me from an adjoining State suffering from great exhaustion, the result of persistent vomiting of pregnancy. She was then five months advanced. About two years before, when about six months pregnant with her first child she had received a slight injury to the right side which was followed immediately by such pain that she was

thought to have gall stone. The pain continued so long, however, and her temperature increased so much, that it was thought later she had peritonitis. This was confined to the right side and extended downward below the line of the navel. She miscarried after about two months; never regained her health; never was able to walk erect; complained constantly of pulling and dragging sensation in the right side which prevented her from holding herself in an upright position. When she became pregnant this time, the vomiting was distressing from the first; and after the third month the pain in the abdomen became very violent, and it was difficult to move her without inducing violent stabbing pains, always confined to the right side. Her condition became so alarming after I saw her that at the seventh month it was determined to be unsafe to allow the pregnancy to go further, and I induced labor and delivered her of a well-developed living child. She had an alarming hæmorrhage, the uterus did not contract readily, and it was two days before I felt at ease regarding her. After two months she could be lifted from the bed but was not able to move her body, as in getting up from or sitting down in a chair, though she could stand and could walk in a bent posture after being helped to her feet. The uterus was found to have considerable adhesion over the fundus, and the same condition of peritoneal adhesions, extending along the line of the colon, was determined to be the cause of her disability. I began electrolysis four months after the delivery, during which time there had been no marked improvement in her state. I used a current of fifty milliamperes, dispersing the positive current over a surface of six inches square and often blistering the skin in the operation. The large vaginal electrode devised by Apostoli was crowded up behind the uterus, and on the right side behind the ovary and the broad ligament, the positive plate being placed over the right side of the abdomen. After five or six applications at intervals of about a week she was able to walk, and the stiffness of her body, which she thought was due to some disease of the hips or of the spine, disappeared. Later a current of the same strength was passed directly through the abdomen from side to side, as high up as the umbilicus, the negative pole always being on the right side. Two months' treatment secured a complete recovery without any evidence remaining of pelvic or

abdominal adhesions. This patient has now been well and has menstruated regularly for six months, and has returned to her family.

In three cases of localized peritonitis of the right pelvic region, the result of salpingitis in which the relapses had been frequent and alarming, I applied a current of fifty milliamperes, using Apostoli's electrodes, the abdominal plate covering the site of the adhesions with the large hard rubber palatina-tipped vaginal electrode being crowded up against the broad ligament of the affected side. The current was continued as long as the patient would endure the pain, usually about eight minutes. The results in these cases were equally good. An interesting fact in connection with the treatment of subserous fibroids where the pressure has been very great and especially where, in cases of multiple fibroids, a small one or a nodule becomes imbedded in the abdominal wall with the effect of producing great pain and difficulty of locomotion, I found these symptoms of pain and peritoneal adhesions were in every instance very speedily removed during the process of application by Apostoli's method. Extending the observations to those conditions of fixation of the uterus and its appendages, the results of salpingitis or of metritis with localized peritoneal inflammation which has not extended to the formation of abscesses but which constitutes the condition formerly known as pelvic cellulitis without suppuration, I made use of the current of the strength of sixty milliamperes in twelve cases. The large vaginal insulated electrode was placed firmly against that portion of the wall of the vagina where the pain was most apparent, the negative pole of the battery attached, and a large dispersion plate about fifteen inches square was applied to the abdomen after having been connected with the positive pole. The current was continued for from eight to twelve minutes, and repeated every fourth day until a dozen applications had been made. The results obtained were uniformly good, though the amount of relief depended upon the amount of inflammatory exudation that was found in each case. The number of applications, too, was determined by the same fact. As compared with any other treatment with which I am familiar the results were far more satisfactory and more speedily obtained.

It has seemed to me for a long time that gynæcologists ought to offer something better for these cases than the slow, troublesome, uncertain methods of hot water douches, iodine or boroglycerate applications; and it is fair to urge upon the profession a more extended trial of electrolysis than has heretofore been employed, with, it seems to me, a prospect of revolutionizing the methods in vogue in the treatment of these troublesome ailments. It is perfectly certain that the adhesions are relaxed by this method, and the results of inflammation are more speedily absorbed than by counter-irritants and so-called absorbents, however applied. In walking cases the patients are not confined to their beds, and are permitted during the entire course of treatment great latitude in matters of exercise. In the graver cases the patients are better managed in the hospital. In cases of sub-involution and hyperplasia of the cervix I have been accustomed to pass a nickel-plated male sound, insulated except for about one inch and a half at its extremity, up through the os internum, and then to disperse the positive current over the abdomen in the manner before described. The results in these cases, of which I have notes of twenty, have been in the main satisfactory, and in about one half of the cases a permanent cure has been effected in a singularly short time.

Regarding the uses of electricity in this last class of cases much has been written by Dr. Mundé, by Dr. Matthew D. Mann of your city and by various other authors, to whom great credit is due. The improvement from electrolysis was shown by Burgoin, who made rather elaborate experiments, to be continuous for a long time after the application, due to continuous chemical decomposition. Fremmhold used a dynamo machine and obtained results that were satisfactory; but states that he considers the only form of electricity which is useful in electrolysis is a constant current from a galvanic cell battery. The technique, however, of the operation as heretofore described has never included the question of the very powerful currents of which I speak. That the milder and longer continued currents have a stimulating and corrective influence in these cases has been most fully demonstrated by former writers; but a distinction must be made between this action of electricity and the more rapid and, it seems

to me, effectual method of which I am speaking, which contemplates the use of the current of much greater power than was formerly deemed safe. The older authors in discussing the question of electrolysis upon living organic tissue, have been about equally divided in opinion as to whether the electrolytic action was continuous through the entire course of the tissues traversed by the current, or as to whether the effects were limited to the chemical changes occurring in the immediate neighborhood of the reophores. I think it cannot be doubted any longer that at least with the stronger currents now used, the electrolytic action of the current is continuous through the entire tissue traversed, differing in various tissues according to their degree of vitality, and to the presence of salts in solution, which make them either good or bad conductors. Now, newly organized tissue, the result of plastic exudation from serous surfaces, has such a low grade of vitality, has so few blood-vessels and is so nearly—so far as electrical tests are concerned—like cartilaginous tissue, that it is a bad conductor and is therefore more likely to be destroyed in the passage of a current of electricity than are the adjacent highly organized tissues which are well known to be good conductors.

These bands of adhesion, being poor conductors, would not be traversed by the weaker currents at all. For the same reason, if a current sufficiently powerful is made to traverse them, they will be more readily destroyed than the surrounding tissue. The poorer the conductor the greater the change in its elements from the passage of electricity. This important fact I have not seen stated elsewhere, and the results obtained have, I believe, depended upon the recognition of this law. The milder continuous current is as dissimilar to these stronger currents as the action of small stimulating doses of opium is unlike the full sedative dose.

Regarding the dangers to be apprehended from these currents of great strength I can only say that I have seen no ill effect excepting in those instances where from inexperience or imperfect instruments the current has been suddenly broken and made again during the application. From this I have seen very great shock, causing in two or three instances rather alarming depression. This accident can be so thoroughly guarded against, however, that I do not think it should be considered as an element of danger.

My experience with uterine fibromata is confined to fifteen cases, of which three were submucus, two being hemorrhagic, four intramural and eight subserous. Of this latter class I have never failed to obtain relief from the distressing symptoms of pain caused by pressure (local peritonitis), and in every instance have checked the growth and caused some diminution of the size of the tumor; though in no instance have I seen the tumor entirely disappear. The largest one operated on as yet was a fibroid which occupied the abdominal cavity, causing distention equivalent to the seventh month of pregnancy. The tumor crowded down in front of the uterus, bulging into the pelvic cavity, and the electrode was placed directly against it with the vaginal wall supervening. I used here about sixty milliamperes of electricity, three times during the first month, and four times in the next month, about midway between the periods. The tumor subsided about two inches during the first month, in its measurement, and about one inch during the second month. After each application there was a profuse alkaline excoriating discharge from the vagina, lasting two days,—about the history in this particular of the other case similarly treated. This patient was so far relieved from the distressing symptoms of pressure and pain that I could not retain her for further treatment, and she went home to a distant part of the State. After several weeks she wrote me that she was still comfortable and free from annoyance. I have not been able to secure a permanent recovery in either case of bleeding fibroid, though the diminution of the tumor was very marked. Here I followed Apostoli's directions and used the positive electrode against the tumor. In both instances the bleeding was checked and the patients improved, so that the intervals between the hæmorrhages was lengthened two months to five months; but the hæmorrhage has recurred though with less severity since. Before treatment the hæmorrhage was constant for months. These seem to be the most unpromising cases, though I am bound to say that I have not succeeded as well with any other form of treatment as I have with galvanism.

The method of employing these stronger currents has not been minutely described, and I can only give you my personal experience as regards the kind of battery that has seemed to be most useful.

In the first place, for practical use a galvanic battery of alternate elements of zinc and carbon immersed in a solution of bichromate of potash and sulphuric acid meets all the requirements. Inasmuch as the electrolytic power of a current depends upon the same quality that makes the current useful in producing heat and light, and not in high tension, it is evident that a battery is powerful in proportion to the amount of surface of the elements exposed to the fluid, and not to the number of elements.

I saw in Geneva a battery of sixty elements, capable of producing 200 milliamperes of electricity, said to be the battery used by Apostoli, in which the fluid was in one receptacle or trough. Trouvé's battery, also, which I brought with me from Paris, has but one compartment for holding the fluid. A battery which is in common use in this country, which has thirty-two cells, each element having an exposure to the fluid of about twenty square inches, answers every purpose. A very important fact, it seems to me, which I learned from the fire alarm manufacturers, was that the fluid made in in the ordinary manner, and then having an excess of bichromate of potash, made a much more powerful current. The conductors, too, should be of copper wire and not of tinsel cord. Having then charged the battery and set it in action and having passed the wire conducting from the positive pole through the milliampere meter, we are now ready for the application. If the vaginal electrode or intra-uterine electrode is to be used, this is connected securely to the vaginal applicator placed in position in the vagina, carefully adjusted against the tumor or the adhesion. While the operator holds this carefully in place, the nurse exposes the abdomen, and having the positive pole of the battery securely attached to the dispersion plate it is laid carefully and slowly upon the abdomen. Great care must be taken that the hands of the physician or nurse do not complete the circuit, and that the wires are not crossed, and that they do not touch the patient. None of the wires that I have seen are sufficiently insulated to make it safe to allow them to touch the skin of the patient. By carelessness in this regard, I in one instance made an ugly burn on the leg of a patient, besides giving such a shock at the same time that it was almost impossible to induce her to submit to a second operation.

The dispersion plate made for Apostoli, which I brought with me from Trouvé, in Paris, consisted of a very malleable plate thoroughly covered with Fuller's earth and chamois over all. This I found was not large enough for the current I desired to use, but I was not able to find any electrician who could duplicate the metal, though I tried a number of compounds, the most promising of which was ordinary soft solder rolled into a thin plate. This did not conduct well, however, and I had constructed and have since used with perfect satisfaction, a dispersion plate of thin rolled copper, padded with two layers of chamois skin which, when thoroughly moistened, make a perfect conductor. The vaginal electrode, as well as the intra-uterine electrode, may be easily improvised out of an ordinary nickel-plated male sound over which rubber tubing is slipped, excepting where it is desired to apply the current.

The time occupied in each sitting may be varied according to the endurance of the patient, though as a rule from eight to ten minutes will be found sufficient.

I cannot speak with positiveness upon the question of danger to the patient from the use of this current. I have never seen any lasting ill-effect. I have never, however, punctured a fibroid with Apostoli's needle, nor do I think it essential in carrying out his theories to do so. I have in dozens of instances made the application to the inside of the uterine cavity with a current of from 40 to 80 milliamperes in strength, and have never seen any ill-effect. In one instance a hard mass like a fibroid in its feel was found in the right iliac fossa of a weak anæmic patient; and though I feared it was a malignant growth at first, its rapid increase prompted me to try the strong current upon it. The consulting staff of the hospital were about equally divided in opinion as to whether it was malignant or not. After five or six applications, with no marked result upon the tumor, I discontinued them,and now, after six or eight months, it is evident that the growth is malignant though it does not increase perceptibly in size, the cachexia and general decline of the patient being taken into account in making up this opinion. No harm was done in this case, and I simply mention it as showing that even with a mistaken diagnosis the effects were not deleterious. Further experiments in this line may develop conditions that forbid electricity, and it is to be hoped

that enough cases may be reported in the future to establish this question. I shall tabulate my own cases at some future time, and present to the profession the results of electrolysis in peritoneal adhesions more in detail than the time you have kindly allotted me permits on this occasion.

ATYPICAL PNEUMONIA.

By E. L. Shurley, M. D.

Professor of Laryngology and Clinical Medicine, Detroit College of Medicine, etc.

[Read before the Alumni Association, Feb. 28, 1888.]

We are all familiar with the clinical history and morbid anatomy of typical fibrinous- and broncho-pneumonia, and whether or not we believe the pneumono-coccus or other micro-organism to be the essential cause, the occurrence in such a large percentage of cases of the same group of signs and lesions forces us to accept at least the doctrine of a specific causation; thus ranking fibrinous pneumonia, if not broncho-pneumonia, with the specific diseases or essential fevers.

Although typical pneumonia does not concern us now, save as a point of departure, we cannot omit a passing consideration of the recently promulgated cause of all forms of acute pneumonia—the pneumono-coccus,—which, by Friedländer, Tolmon, and a host of other brilliant observers, is regarded as the essential cause of all forms of the fibrinous croupous variety.

Upon this etiological theory, also, the whole list of atypical cases is accounted for by the vagaries and untoward incidents in the life history of the micro-organism which, in one instance, may permeate by redundance the blood or other vital streams, diffusing its peculiar sepsis throughout the body; at another, invade adjacent apparatus or organs through some accident or force; while, at another, after a period of activity, recoil to a state of latency for renewed activity again.

I wish I could accept this doctrine, for it would clear up in my mind many anomalous phenomena connected with this disease; but it seems too crude as yet, and too inconsistent with clinical observation, to be taken as promulgated, notwithstanding the numerous observations as to its presence (in cases of pneumonia) in the lungs,

brain, pleura and kidneys, and the other weighty testimony in its behalf.

As we have not the time at present to requisitely discuss it, I must dismiss the topic with the following reflections as part of the basis of my skepticism:

If a definite micro-organism were the sole determining factor of these anatomical lesions, so universally characteristic of the disease, it would always reside by preference in the lower lobes of the lungs; and, when assuming activity, confine its microbiotic changes to these localities—because these localities are the principal theater of disease. It might, therefore, be locally infectious, but not generally, and probably not contagious; thus the pathological changes of fibrinous pneumonia could be easily accounted for. This view, however, necessitates the assumption that every individual, robust or weak alike, is constantly primed—so to speak—with the microbes in a latent state, simply awaiting an exciting cause to set up the disease.

If it could be otherwise, that the micro-organism were extrinsic in origin—invading the respiratory organs through their outer channels,—then we should not expect such definite anatomical lesions primarily in the remote and less accessible portion of the pulmonary apparatus, such as the lower lobes, but a disseminated mischief—*lobular* instead of *lobar* lesions.

No other result could be expected in the natural course of events, since there exists no peculiar histological character or physiological function of the air vesicles of the bases which do not belong to those in other parts of the lungs. We should, therefore, have bronchopneumonia far oftener, and more distinct general infection. It would hence seem probable that although the pneumo-coccus is a frequent accompaniment in the pathogenesis of many cases of fibrinous pneumonia, yet, it, like the tubercle bacillus, is an incidental result rather than the cause of the process. Assuming, however—which we must—the specific nature of the typical disease, as I said before, whether we believe or not its essential cause to be the coccus, we are confronted by a maze of perplexity when we come to the consideration of the nature of the various forms of the atypical disease.

Irregular in access, course, signs, symptomatology, pathological lesions, and sequences, they constitute a class of cases far more troublesome and dangerous than the regular type.

Before alluding to the particular forms, I would invite your attention to one of the most constant anomalies connected with this class of cases, and that is the *character of the inflammation*, which is for the most part an ordinary inflammation either simple or co-ordinated with the plastic. It would, therefore, seem that in many of these cases there exists a pneumonitis—not a pneumonia; this may appear to be a distinction without a difference, but still it seems to be a fact; as, for instance, a traumatism. I well remember a case of gun-shot wound of the right lung which I attended with a fellow practitioner a few years ago, which terminated in death at about the third week, in which the morbid anatomy presented only the sequences of inflammation of the lung, without the lesions common to fibrinous pneumonia.

Therefore, if we will recognize the two conditions as somewhat distinct—that is, the one an ordinary inflammation, and the other a peculiar inflammatory process originated and maintained by a materies morbi of limited existence and potency, we can more easily understand the several perculiarities of atypical pneumonia; briefly, I will call your attention to some of the commonly recognized varieties, dwelling upon one or two points in passing. It will be remembered, of course, that many of these cases are distinctly secondary, while others are complications of some other acute disease.

Pleuro-pneumonia and pneumo-pleurisy are apt to be very irregular in their course and physical signs; indeed, it is oftentimes difficult to make a diagnosis in the early period, especially if ægophony be absent.

Pneumonia, connected with rheumatism or gout, is very insidious; there may be absence of pain in the chest, and cough, and expectoration for a considerable time; meanwhile, the lung gradually hepatizes until the whole organ, perhaps, becomes involved. In such cases the heart is so taxed, if not actually involved, that sudden and perhaps unexpected death is imminent; pericarditis also often complicates the situation.

Typhoid-pneumonia—so called—is often confounded with pneumonia complicating typhoid fever. No confusion ought to occur if we keep in mind that the former is an adynamic form of infectious pneumonia which is usually lobar, while the pneumonia of typhoid fever is a complication and is more generally lobular and symmetrical; both of these forms are very irregular in their symptomatology, the cough and rusty sputum often being absent or insignificant, while the physical signs, for a time (perhaps until the second week) are indistinct.

Latent pneumonia is one of the most dangerous of all varieties according to my experience. It may or may not be preceded by some group of symptoms pointing to one of the fevers; indeed, I think that most of the cases regarded as malarial pneumonia may be considered latent; there may be no indications of pulmonary involvement for a week or ten days, excepting slight cough and moderately accelerated respiration, when, all at once as it were, a suddenly rapid development of the subjective and objective signs awakens us to the real trouble and danger. These cases are about as often lobular as lobar, although apparently originating in the lobules themselves. The so-called *relapsing form* would seem in most instances to correspond to the so-called *malarial form*—the existence of which is denied by many, especially those who firmly accept the microbiotic theory of causation.

The pneumonia of influenza and erysipelas are varieties which may as well—for the sake of brevity—be alluded to together; in some way or other they are intimately connected with the contagious type of fibrinous pneumonia. A reference to the medical literature of the subject for the past fifteen years will show in the history of endemics or epidemics of the disease, that influenza, and less often erysipelas, have been the precursors or concomitants of a large number of cases. On account of this fact, together with the tardy appearance of the characteristic symptoms and signs, the pulmonary lesions could be easily overlooked—excepting, perhaps, for their surrounding prevalence. These are not always connected with the contagious form, for we meet almost every winter with cases of lobular pneumonia, or fibrinous pneumonia, connected with influenza, which are of mild types; indeed, by some practitioners they are

regarded as simply "engorgement," and, strange as it may seem, in many the bronchial mucous membrane is but slightly involved, and a brisk cathartic will, once in a while, suffice to hasten the clearing up of the lung involved.

The pneumonia of drunkards, so generally fatal, may be very irregular in its development and announcement; in some instances remaining latent for as long a time as a week or ten days or two weeks, and then, suddenly as it were, breaking out with signs and symptoms which point to a speedily fatal issue. The same may be said of pneumonia connected with diabetes, and chronic Bright's disease; undoubtedly with the former the origin of the pulmonary disease is frequently in œdema, which, as we know, may be very insidious.

Pneumonia in children and old age presents many perplexing peculiarities and abnormalities which physical exploration of the chest will fail to elicit,—as, for instance, pneumonia following severe indigestion or accident. In either class of persons, a persistence of pyrexia and dyspnœa, which cannot be otherwise accounted for, should rivet our suspicion, even in the absence of adequate physical signs or symptoms.

There are many other designated varieties of pneumonia which I will not take the time now to call in review, as anomalies in the course of all acute diseases come to the observation of every practitioner.

In conclusion, there are three cardinal thoughts in relation to this subject which I would like to suggest for your consideration, viz:

That there is a strong probability that a majority of the cases of atypical pneumonia consist of an ordinary inflammation of the pulmonary tissues, either primary or secondary.

That broncho-pneumonia as applied to some cases of lobular pneumonia is a misnomer—the disease originating in the lobules and thence extending.

And, lastly, that every case of acute disease presenting anomalies of clinical history ought to be carefully watched for the evolution of pulmonary disease.

A LONDON druggist displays the following card in his window: "Come in and get twelve emetics for a shilling."—*Exchange.*

POSSIBILITIES IN MEDICINE.

By Wm. C. Wey, M. D.
Elmira, N. Y.

[Read before the Alumni Association, February 28, 1888.]

A spirit of restlessness is characteristic of the movements of the scientific world. This unrest is not shown in the exhibition of impotent or wasted energy, even though the results of its operators must, at times, be set down on the losing side of true progress. The failures of some experimenters act as incentives to the zeal of others. It can scarcely be said that the work of the laboratory, however utopian it may be under certain conditions, is actually without significance in respect to the possibilities to be attained in a specific direction in the pursuit of knowledge, or in view of the chances of accidental discovery. The intensified persistence of a man with one idea, which has become the passion of his life and crowds out all other considerations, may be fruitful of accomplishment by reason of the tenacity of his purpose, when the many-sided student, by the circumstance of the segregation of his efforts, falls short of attaining the objects of his pursuit. This statement should not be accepted as an encouragement in directions of inquiry which have been exhausted by previous investigators. This possibility is in keeping with the narrow vision of a man whose single purpose is so constant and uncompromising as to blind him to the achievements of his coworkers, or his predecessors in the same field. It suggests the act of an enthusiast, unmindful of consequences, who would enter an abandoned coal mine and proceed to demolish the supports which, originally a part of the precious contents of the place, had enabled its excavation to be conducted in safety from the disaster of the collapse of the surface of the earth. There could be but one termination of such temerity. The props removed, the vault of the mine would fall and form a speedy tomb for the heedless zealot, and the darkness of the earth would as effectually cover his remains as all remembrance of his labors.

True, scientific studies, if not always conducted in the light of day and under the observation of witnesses, lead only in the direction of general information for the public good. Take, for instance, the

operation of ovariotomy, which had its origin under circumstances which reflect everlasting honor upon the boldness and the skill of Dr. McDowell. What was begun in defiance of the accepted belief in the profession, that abdominal tumors were not amenable to medical or surgical interference, by slow degrees at first, and hesitatingly, and under the most determined opposition at the hands of the best surgeons of the world, grew into favor, and came, at last, to be regarded, not only as a legitimate proceeding, but one imperatively demanded, because of the simplicity of its execution and the success which attends it.

First in order, in this connection, came the study of the subject of abdominal tumors. The question of diagnosis opened an unexplored drift of investigation and stimulated the minds of observers to a degree almost unknown before in the history of specific science, Collaterally, the whole realm of pathological conditions, as well as of physiological possibilities in connection with the contents of the abdominal cavity, were brought under interrogation. Scientific investigation did not stop at this point. It would still have gone on toward greater accuracy in maturing details and in settling matters in dispute, if the boon of anæsthesia had not been given to mankind. That blessing came down at an auspicious moment, to aid the inquiry under review. Surgical excellence kept pace with the expanding movement, if it did not advance beyond it. And as a result of this illustration of the concentration of the powers of the mind in a specific direction, surgical science presents to us not only the achievements which have been wrought in the relief of suffering by the successful removal of ovarian tumors, but an added possibility, which comprehends the safe and easy opening of the peritoneal cavity for a class of cases believed, a short time since, to be infinitely beyond the reach of operative procedure and outside the limits of imagination or speculation.

If the sentiment attributed to Mr. Lawson Tait is true, it is as easy to open the abdomen as to put one's hand in his pocket. The unbroken success of this surgeon in one hundred and thirty sections of that cavity, gives color to the saying.

I have thus rapidly sketched a single illustration (out of many) to exhibit the possibilities in medicine.

There are doubtless some members of the profession present on this occasion, who can bring to mind the sharp personal animosities which were excited between physicians in discussing the question of the propriety of running the risk of an operation for the removal of an ovarian tumor, against letting the case take its own course toward a fatal issue.

In our mortality records one feature stands forth with startling significance, and reflects upon the science of medicine and upon the civilization of the period in which we live. I refer to the extreme death rate from pulmonary consumption. Can it not be said that the possibilities in our profession include such a reduction of fatality in this disease, as will cause it to be removed from its prominence in the mortuary exhibit, and consigned to a lower range? This is worth striving for, and it is not beyond a reasonable expectation, viewing the subject in a hopeful way, that the deliberate counsel of physicians, employed to direct public sentiment, will be able to modify the acquired habits of the people in mind and body to such a degree as to make the occurrence of tubercular consumption impossible, under prescribed conditions.

We cannot undertake to make man over again, but we can so shape his physical characteristics and his surroundings as to redeem him from the tyranny of specific degeneration and decay. We can lead him better than he can lead himself in the direction which will lesson the faulty tendencies of inheritance and clothe him with attributes of resistance to the views and weaknesses which belong to his composite nature.

Taking into account his family history, near and distant, a process of instruction can be commenced, from his earliest years, in reference to his future occupation, place of abode, manner of living, including hours and methods of study, food, sleep, physical training, dress and companionship. The defects of his birth and ancestry, in a measure and largely, may be modified and overcome, with a tendency, it must be confessed, occasionally exhibited, to return to the type of the original man, in spite of particular care and treatment. A painstaking study of what is lacking in his bodily composition and conformation, as well as in his mental and moral development, should be entered upon, in anticipation of his assuming

relations in life which will fit him to bear the responsibilities, for instance,of the marriage relation. This involves,of course, an equally careful examination of the physical and moral bearings of the other party in such an union, and suggests a methodical and business-like consideration of the subject, rather than one sentimental or emotional.

I am reminded, in this connection, of an observation made by Dr. Johnson, that "Marriage is like putting your hand in a sack, where there are nine serpents and one eel; you may, by chance, grasp the eel, but you are more likely to lay hold of a serpent."

As philosophers as well as physicians, it is charitable to attribute this remark in denunciation of the marriage relation to the remote rather than the near consequences of the act, revealed in the transmission of qualities of mind and body which fasten upon the race with all the sharpness and venom of a serpent's tooth.

Taking up again a serious train of thought, we can assert, without fear of dispute, that medical science, through the agencies of sanitary supervision and control, so wonderfully progressed of late, is capable of dealing with the questions which relate to the every-day life of all classes of people. The possibilities in medicine are in no manner more successfully displayed than in the protection given to the employment and the homes of laboring men in great cities, where the authority of boards of health is absolute and worthy of respect and obedience.

But it is not in the larger centers of population alone that the work of sanitary reform finds necessity for exercising its influence in the correction of abuses which swell the death rate from diseases which always prevail, as well as from outbursts of sporadic or epidemic violence. I speak from observation when I declare that individual neglect of sanitary precautions in the country districts is a more flagrant offence against propriety than is witnessed in municipal experience. It would seem as if all that has been said and done to keep people out of the reach of preventable disease had been like beating the air, as far as results are observed in the country at large. It is a herculean effort to undertake to change the thoughts and the habits of generations of men whose lives have moved in fixed grooves and whose convictions are chronic and stubborn.

Permit me to describe the conditions of a country house and its surroundings, as they fell under my notice a few months since, in a salubrious region, which is a fair illustration of hundreds of farm houses and grounds to be found in every town and county throughout the State.

Four members of a family of seven adults, in quick succession, had sickened with typhoid fever, and an impression prevailed in the mind of the owner of the farm on which they lived that, possibly, the local peculiarities of the place might be responsible for the production of the disease. Later another inmate of the house was prostrated by fever. The product of the farm was largely that of butter. The house was of wood, one story and a half high, and built on a steep side-hill. The cellar, imperfectly ventilated, dark and damp, but in neat order, contained a number of tubs and firkins of butter ready for shipment, and the usual array of pans of milk, "set for cream," on shelves suspended from the ceiling. A rough shed in the rear of the house served the purpose of a "summer kitchen," and was furnished with a stove and the common appliances of such an apartment. A curbed well, from twelve to fifteen feet deep, a few steps from the back door of the house, and equally distant from the shed, furnished the water supply for all domestic and culinary operations, by means of a chain pump. The well had been dug on the edge of a bluff, and the ground descended abruptly to the dry bed of what is a stream during periods of continuous rain, or in the breaking up of spring. The bed of the brook was on a level with the bottom of the well and not more than thirty feet removed from it. All the waste and slop water from the house and kitchen and all urinary discharges were thrown out on the surface of the ground, to find escape in the bed of the creek. Instead of descending into the ravine, they sank in the earth, within a few feet of the well. The grounds rose rapidly from the house, which fronted a highway, and were occupied in the order named, by a privy, a pig-pen, a barn-yard containing two large heaps or mounds of manure, and an enclosure used twice a day for milking cows. The privy, constructed after the manner common in the country, was an excavation six feet long, four feet wide and four or five feet deep, with boarded sides and covered by a house. The vault was full of deposits,

which came nearly to the top of the seats, and the odor was characteristic of such a place. It had been in use many years, had never been cleaned or deodorized and contained all the objectionable features of the worst form of an excavated closet. The pig-pen, in close contact with the privy, was more repulsive than the latter. The animals confined within its precincts moved nearly leg-deep in the soft accumulation of fœcal discharges, butter-milk and house swill, in a state of putrefactive fermentation. Two large heaps of manure occupied the barn-yard, which had been collected nine months before and had not been removed to the fields, because of pressure of work and scarcity of labor. A spring beneath the barn spread moisture over the yard, and penetrating through the heaps of manure, carried a solution of animal excreta down the hill-side, toward the house and well. The enclosure used for milking cows descended in the direction of the dry bed of the brook, and was so filled with old and fresh animal deposits, interspersed with human excrement, as to suggest careful walking, in making a survey of its features. The occurrence of human excreta in this locality, as well as in the barn-yard, is to be accounted for by the overflowing state of the privy vault, which prompted a more general distribution of intestinal dejections in situations accessible for that purpose.

The water in the well was subjected to examination by an accomplished chemist and pronounced polluted and unfit for use.

The well water furnished the only supply for all purposes connected with the every-day necessities of the family, for cooking, drinking, washing and the management of the dairy. Pans, churns, tubs, crocks and pails were cleansed with it, and the cloths used in covering the butter were dipped in it.

More favorable conditions could not be imagined for contaminating soil-saturation and water supply than were found in the locality under consideration. The topography of the place accelerated the evils which converted an otherwise healthful hill-side into a fever-producing neighborhood. In what manner the specific microscopic typhoid germ was generated in this immediate vicinity, cannot, of course, be determined, and this question is not pertinent to the present inquiry.

The dampness of the cellar, for the relief of which no provision had been made, affords verification of a natural law, by which moisture contained in the soil sought an outlet and found a place of accumulation. This remark applies also to the well.

As I said, a little way back, this is not an unusual picture in country experience, except as it bears upon the outbreak of a serious disease. Even in this respect, the picture will be recognized by physicians familiar with practice in the country. Hundreds of homes in the rural districts are in just such a neglected and unsanitary state. The presence of typhoid fever, diphtheria, scarlet fever and erysipelas, is all that is needed to call attention to the indifference which prevails in regard to the commonest proprieties of life in the outlying regions of our fair country—

> "Where every prospect pleases,
> And only man is vile."

In this connection I am tempted to quote from an editorial in the *Boston Medical and Surgical Journal* of Feb. 9th, entitled: "The sanitary condition of the Watertown (Mass.) Arsenal." "A calculation based upon the history of the Arsenal, taken from its records, shows that the soil of the few acres of Arsenal grounds has been called upon since 1814, to receive, absorb and assimilate about one hundred and seventy-four tons of solid or fœcal matter, and 11,098 hogsheads of liquid or urinary matter, in addition to a similar amount of slops, grease, etc., owing to the vicious and dangerous open cesspool system which prevails."

The article concludes with these trenchant words: "Accepting the facts as stated, we most heartily endorse the further opinion expressed, that, after this warning, further hesitancy and delay on the part of those in authority will be not only reprehensible but absolutely criminal."

To return to the postulate which directed the thoughts of the writer in this hasty and imperfect survey of an all-important subject in medicine, it may be asked, What are the possibilities of our science in respect to the better sanitation of the country? Reply will be made by some, Educate the people up to a proper appreciation of this question. Granting that "knowledge is power," it is too slow an instrumentality to compass the ends sought to be attained, with the

fact staring us in the face, that the country is ravaged by preventable disease. A thousand difficulties at once confront us as to the methods to be employed to make the people comprehend that they are in danger from visitations of disease in the ordinary pursuits of life which govern them, as their progenitors were governed, since the settlement of the country. They cannot be made to understand that the habits of the primitive settlers on the lands to which, perhaps, they have succeeded, were as reckless of consequences, in a sanitary point of view, as their own customs, but less fruitful in results simply because of the sparseness of population in a former period, and the corrective influence of the earth, which received and neutralized the products of their faulty manners. A limit, however, has been put upon the generous qualities of the soil in these particulars, and the population has grown from a "feeble folk" into a great multitude.

Educational or persuasive measures are impotent to deal with this question. Coercive measures should be put in operation. First, the voice of the profession should be heard, and next, the power of the law should follow, to eradicate the sources of disease from the habitations of men who are alike indifferent to the certain consequences of neglect and the advancing spirit of intelligence. In these days of progressive and aggressive knowledge in regard to State medicine, the obstructionist must be overridden by the will and the majesty of a better sentiment and the demands of science. If men cannot take care of themselves, like the insane and the imbecile, they need to be placed under supervision, for the protection of society.

Hence the necessity for clothing State boards of health with unlimited power. Local boards, too often political in composition, and moved by influences and prejudices engendered in the neighborhood, are not unfrequently incompetent to exercise the authority given by statute for the correction of existing defects.

Municipal practice calls for house-to-house visitation, to determine the existence of unsanitary conditions. Practice in the country makes inspection of houses, lands, out-buildings, water-courses, etc., only when they are believed to be involved in the production of disease. Municipal authority deals largely with preventive

expedients. Activity in the country is aroused after specific disease has made progress which excites alarm among the people.

This inequality in efficiency in matters relating to the public health is explained, largely, by the unceasing vigilance which must be exercised in cities to preserve the inhabitants against the ignorance, the depravity, the selfishness and the cupidity of certain forms of independent citizenship. A frequent tendency, in such a grouping, even in the midst of the most advanced intelligence, is to return to the coarser habits of a far-off progenitor. A large city and a "free country" offer unlimited opportunities for indulgence in offensive traits of person and equally offensive sentiments and expressions of speech.

The country, on the other hand, permits less of concealment of individual peculiarities, and is less tolerant of morbid and incendiary sentiment.

Independently of the possible attainments in medicine, in dealing with the tubercle bacillus and the typhoid germ, to lessen or destroy their potency in an incipient state, before they have overcome the power of resistance in the human system, I would plead for an earnest effort on the part of the profession to increase the efficiency of local boards of health.

The censure of the constant presence of typhoid fever, which a late writer (Quine) has declared, in respect to its germ, to be "practically immortal," should be removed by more intimate knowledge of its characteristics and greater care in the treatment of the dejections of those sick from the disease. The experience at Plymouth, Pa., which cost so many lives, ought to be kept in perpetual remembrance, coupled with the assertion that "under no circumstances can typhoid fever originate from the influence of filth alone, unless that filth contains the specific germ."—Quine.

But enough on this subject, with the passing remark that the possibilities in medicine will, doubtless, in the near future, reduce the ravages of tuberculosis and typhoid fever to a manageable limit. We are in the full tide of scientific inquiry and progress, and our measure of growth is to be estimated by short and surprising, rather than slow and expected stages. In that collection of charming papers which, in 1887, ran through many numbers of the *Atlantic*

Monthly, entitled "One Hundred Days in Europe," Dr. Oliver Wendell Holmes, in revisiting the scenes of his medical pupilage in Paris fifty years ago, uses this language: "How strange it is to look down on one's venerated teachers, after climbing with the world's progress half a century above the level where we left them! The stethoscope was almost a novelty in those days. The microscope was never mentioned by any clinical instructor I listened to while a medical student. *Nous avons changé tout cela* is true of every generation in medicine—changed oftentimes by improvement, sometimes by fashion, or the pendulum-swing from one extreme to another."

This change, whether by radical improvement, by fashion, or the pendulum-swing from one extreme to another, must be potent, indeed, when an acknowledged authority in the neurological field (S. Weir Mitchell) does not hesitate to declare that the teaching of the books, ten years after they have been written, must be regarded as mere rubbish in the line of fresh inquiry.

That the change is sometimes effected by fashion, will not be disputed, and that the swing of the pendulum is from one extreme to another is proven in the use of antipyretics in the treatment of disease, to an extent which, while it demonstrates the power of certain remedies, in this class, to reduce temperature, raises a question in their employment in respect to "a side of danger that should not be lost sight of."—Loomis.

While the trend of sentiment in the profession has regarded the reduction of temperature in fever as a conservative operation, merely, practical expedients have been invoked to push this possibility to the limit of tolerance and safety. The swing of the pendulum has reached the furthest bound of prudence, and as it is now moving in the other direction, the question is asked, prompted by ample observation, if results justify the methods by which specific disease, in duration, severity and the avoidance of complications, can be treated "without serious loss of vitality, or at the expense of the reserved power of the patient."—Loomis.

The possibilities in medicine are nearly limitless. They can only be evoked through and by means of patient observation, ceaseless study and the intelligent application of principles in practice.

MEMORIAL TO THE LATE PROFESSOR ROCHESTER.

By John H. Pryor, M. D.,
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[Read before the Alumni Association, February 28, 1888.]

Mr. President and Members of the Alumni Association—During the last decade a succession of mournful events has marked the history of this Association, and to-day we miss one who for many years was closely identified with our Alma Mater and represented a resplendent past which death has almost silenced. Dr. Thomas F. Rochester departed this life on the 24th day of May, 1887, after a long illness caused by chronic Bright's disease.

He was the last to remain among us of that galaxy of brilliant teachers and practitioners who adorned the profession and by high achievement reflected glory upon our Alma Mater.

Since the death of the lamented Rochester many tributes of praise have commemorated his many virtues; and the incidents of his professional life have been narrated by those who knew him long and were qualified to speak.

A bare recital of the eventful life and attainments of Thomas F. Rochester will form a more eloquent eulogy than the glowing figures of the rhetorician can pronounce.

Born in Western New York among those rugged surroundings which environed the youth of so many great men; educated in the arts at Geneva College and in his chosen profession at the University of Pennsylvania and hospitals of New York City; broadened in mind and strengthened in learning by travel and study in the old world; Dr. Rochester, after two years of practice in New York City, chose the City of Buffalo as the theater of his life's work, and opened among us the career which at its very beginning gave promise of a brilliant and successful future. In glancing over the history of those early days it seems that circumstances combined to afford a field for the exhibition of his powerful personality and the development of his marked ability. Associated with great minds who won renown and exerted a potent influence in moulding his future, his extensive learning and those qualities which made him a leader in the profession compelled recognition, and at the age of thirity he had

acquired a lucrative practice and received the distinguished honor of being called to succeed the late Austin Flint as Professor of Principles and Practice of Medicine and Clinical Medicine in the University of Buffalo; a position which he filled ably until the time of his death. As a teacher he contributed in a large degree to establish and maintain the reputation of the University with which he was connected for thirty-four years. He was an earnest, energetic speaker, with a wide range of feeling; which at times rose to enthusiasm and found expression in eloquence. Painstaking in instruction, lucid in diction, rich in illustration drawn from vast experience, he was qualified to speak as an authority. By his cordial manner and sterling character he won the love and admiration of his pupils, and attracted them by that rare but indefinable quality which the successful teacher must possess and exert. In the medical journals published during the early part of his career the name of Dr. Rochester frequently appeared as a contributor. His articles possessed rare merit and his language was characterized by that same fluency and grace of style observable in his lectures. But the increase of practice and the demands of a voluminous correspondence with physicians caused him to neglect writing more and more, and it is to be regretted that he has not left behind him in enduring form more of his extensive and useful knowledge. For many years he was attending physician to the Buffalo General Hospital and Hospital of the Sisters of Charity, and at the time of his death held the position of Consulting Physician to the Buffalo General Hospital. As a practitioner no man ranked higher in the community in which he lived. Possessed of acute perceptive faculties, he was a tireless and keen observer of disease and directed his attention chiefly to clinical study. It is upon his well earned reputation as a clinician that a claim for scientific attainment must rest. Natural aptitude and unusual opportunities for varied experience had given him the requisites which should distinguish the consultant; in which capacity he was always regarded as a capable and trustworthy adviser. He was wisely conservative—a careful and exceptional diagnostician, and possessed a wide knowledge of therapeutics, which gave his opinion value. Es pecially was this true in relation to diseases of the heart and lungs, in the diagnosis and treatment of which he was an acknowledged

authority. Although of a retiring nature which never sought advancement by courting honors or position, he received many evidences of the esteem of his fellow physicians, and filled prominent positions in city, state and national medical bodies. A broad mind, liberal culture and public spirit made him an ideal citizen in the fullest sense; and he used his great power and influence to promote the various charitable and educational institutions of our city by occupying positions of trust and importance which he was constantly called upon to fill. During a life filled with high employment from its beginning—duty after duty thrust upon him—there never came a time until slow disease and suffering subdued his strength, when he did not meet them and fulfill their every requirement. Beneath the opportunities which sometimes attend a life to crown it with distinction there must lie certain elements of constitution and character which enable the man to make proper use of them, else his position must be insecure or ephemeral. And it is upon the strength and beauty of these fundamental elements of success as displayed by Dr. Rochester that I would dwell with emphasis. He was planned by nature for a lofty purpose. His rugged physique seemed to have no limit of endurance, and his mind, equally untiring, was ever ready for new tasks. Possessed of a will which halted at no obstacle and an indomitable energy for execution, he disposed of a tremendous amount of work. Amongst the manifold attributes of character which contributed to make a life unusually eventful his remarkable capacity for work stands out most prominent. The powers which nature conferred upon him were used to their utmost, yet with system and constant vigor. The petty details of work, which to some are drudgery, had no terrors for him. Every duty of the long day, however trivial, had its due attention, yet so powerful was his mind and systematic its workings that he was enabled to turn from one duty to another with ease and to find needed rest in the brief interval which elapsed between them. Lord Cecil once said of Sir Walter Raleigh that he could "toil terribly." These words convey an idea how so much was accomplished in the brief span of life. Dr. Rochester was preëminently a man of action, and had all the characteristics of a strong nature. Positive and uncompromising in his opinions, he preferred battles to strategy and met opposition with that

high courage born only of stern convictions. He regarded a little integrity as better than any career, and was actuated by high ideals which he kept inviolate. With his patients his generous nature was manifested by that broad spirit of philanthropy which endeared him to all and made him reverenced and loved among the poor. No call for help from the distressed was unheeded, and the poor unable to pay the physician's fee received the same unremitting attention as the wealthy. Many years of enormous practice yielded what might have accumulated to a large fortune, but, unselfish to a fault, he derived greatest pleasure from the use of his influence and abundant means to aid the weak and unfortunate. His lavish charity was proverbial in Buffalo, and there are few institutions in this city which have not been the recipients of his bounty. Truly he "learned the luxury of doing good."

To those who had the good fortune to know Dr. Rochester as a friend, he was pure and elevated in thought, intensely emotional, ardent in his attachments, of a poetic temperament and feelings most refined. These radiant gifts of mind were revealed by the sympathetic voice, charming manners, and often, yes, very often, by the tear and choked utterance of grief when human effort proved ineffectual.

Gladly would I linger over those gentle impulses which brought joy and light into so many homes that the announcement of his death stirred the community where his beneficent influences had been felt to its depth and caused universal mourning. Were it permitted to draw aside the veil, his home life would appear as a revelation best and briefly expressed by paraphrasing the words of a poet:

"Affections were as thoughts to him,
The measures of his hours;
His feelings had the fragrancy,
The freshness, of young flowers."

During the long illness which eventually caused death, he suffered pain and great discomfort with uncomplaining submission, and met the inexorable decree which severed all the ties so dear to him with the same heroism that characterized his every action.

Emerson truly says that "Time dissipates to shining ether the solid angularity of facts." But glowing deeds and an exemplary life leave an impress which will linger.

For an age Dr. Rochester was the representative physician and citizen. In him were blended the highest virtues and noblest aspirations of his profession. By unceasing toil and devotion he reached the summit of true success, and his brilliant career will arouse emulation to perpetuate the memory of one whose whole life answered resolutely by precept and example the sad query of Lowell:

> "What is there that abides:
> To make the next age better for the last?
> Is earth too poor to give us
> Something to live for here that shall outlive us?"

Mr. President: 'T is a source of gladness that kindly feeling and mutual interest bring men in communion within the precincts of an Alma Mater where a stiller air prevails to sound the echoings of the past while memory leads the mind in retrospection. It is here where cherished memories and traditions constitute a lasting euglogy, and the name of the revered dead awakens tender recollections which time cannot efface, that I would pay the humble tribute to one dearly beloved, who after a life consecrated to his profession and humanity, has left to us a rich heritage which we must keep imperishable.

AN ADDRESS UPON THE LIFE AND CHARACTER OF THE LATE PROFESSOR JULIUS F. MINER, M. D.

By Edward N. Brush, M. D.
Pennsylvania Hospital for the Insane, Philadelphia.

[Read before the Alumni Association, February 28, 1888.]

> "Renouncing the honors at which the world aims, I desire only to know the truth, and to live as well as I can; and, when the time comes to die"—
> "I pray thee, then,
> Write me as one that loves his his fellow-men."

Mr. President and Gentlemen—In accepting your invitation to deliver a memorial address upon the life of the late Professor Miner, I confess that I am moved by conflicting emotions. I feel, in the first place, a melancholy pleasure, that I am permitted to say something of him who was my teacher in medicine and surgery, and with whom my relations were of the most intimate nature during my student days and early professional career. On the other hand, I appreciate very fully my inability to do justice to the subject. Whatever may be the shortcomings in what I shall say to you, gentlemen,—and those of you who knew and honored Dr. Miner as a man, as a

surgeon, as a teacher, will recognize many,—I trust you will bear with them, and with me, and remember that I have endeavored to tell the truth; and, as a great painter said of one of the productions of his genius, "It is the truth told lovingly." Since receiving your invitation I have pondered frequently upon the subject. I have seen him, whose loss we mourn, in his home amid the dear influences and surroundings of his family life. I have imagined him in the midst of his busy professional career,—in the varying duties of private practice or among the suffering in hospital wards,—calm, unmoved, yet sympathetic, equal to any emergency; and again I have seen him standing in these halls, laying down the principles of the art he so well practiced; and the picture has appeared so real that it seemed that I must be able to describe it and draw some lessons therefrom. But when put to the test the task has proven too great. I can but wish that the idea of his life,—what he was, what his work meant to him and to the profession which he adorned, would

> "Sweetly creep
> Into my study of imagination;
> And every lovely organ of his life
> Would come apparelled in more precious habit—
> More moving, delicate and full of life—
> Into the eye and prospect of my soul,
> Than when he lived indeed."

Julius Francis Miner was born in Peru, Berkshire County, Mass., February 16, 1823. He received his education at the Mountain Seminary, Worthington, Mass., and the Williston Seminary, East Hampton, Mass. In medicine he was trained at the Berkshire Medical College, Pittsfield, Mass., and the Albany Medical College, Albany, N. Y., from which institution he received his degree in 1847. He also pursued special surgical and ophthalmological studies in New York City. He commenced the practice of medicine in New Braintree, Mass., in 1847, and after remaining there five years removed to Winchester, N. H., where he practiced until March 1855, when he came to Buffalo. In 1860 Dr. Miner was appointed one of the visiting surgeons of the Buffalo General Hospital, succeeding the late Professor Frank H. Hamilton. In 1861 he published the first number of the *Buffalo Medical and Surgical Journal.* In 1867 he was made Professor of Surgical Anatomy and Ophthalmology, and in

1870 was appointed Professor of Special and Clinical Surgery. In the same year he was appointed surgeon to the Buffalo Hospital of the Sisters of Charity. These positions he held until the disease which terminated his life compelled him to relinquish active duty. His last course of lectures was delivered during the College session of 1881–82.

Shortly after coming to Buffalo, within a year, indeed, of his settlement here, Dr. Miner in making a post-mortem examination was poisoned by the prick of a needle and very nearly lost his life in consequence. As a matter of melancholy interest in connection with this I may be permitted a brief digression, to say that some time before this an only brother, a physician, who still survives, met with a similar accident, which also threatened a fatal termination, and which did result in the death of his mother, who pricked her hand with a pin in the dressings upon her son's arm.

Long before he became connected with this College Dr. Miner may be said to have been a teacher to the profession. When in 1861 he issued the first number of the *Buffalo Medical and Surgical Journal*, his main object was to afford a means of communication and interchange of ideas between the practitioners of this vicinity; but he could not long conduct such an enterprise without impressing upon it the stamp of his own opinions. For the profession of medicine he had a warm affection. At the close of the first volume of the journal he says: "We have at heart the benefit of the medical profession and shall hope to do our humble part in protecting it from foes within and open enemies without; to encourage and strengthen the kindlier relations of professional intercourse, and to elevate its members high above the common level of empiricism and charlatanry."

So earnest was he in his pleas against unnecessary and routine medication, that he came to be viewed by some of his medical friends as a skeptic. He was, indeed, a skeptic, but in the highest sense, in the most reverent manner. He appreciated with Emerson, who simply repeats a Socratic epigram, that "Knowledge is the knowing that we cannot know."

He believed that the public should be taught that many diseases are self-limited, and that they require intelligent care and direction rather than active medication. With Sydenham he held that it were

sacrilege to believe that the Creator of the human body had not implanted iu that body the power to successfully resist the various ills and accidents that might befall it. We find him again and again impressing upon his readers this duty of educating the people; not educating them to be amateur surgeons and dilettante physicians, but to understand the limits of medicine and the activity of the *vis medicatrix naturæ.*

This memorial would be very incomplete did I not refer to Dr. Miner as a surgeon; for it was as a surgeon that he was most widely known. His fame was not confined to his city or country, but was co-extensive with the records of surgery. In hospital and private practice he performed most of the important operations, and in more than one instance instituted operative procedures which have been widely adopted. It would take several pages to record the titles, even, of those operations which he reported in the journals or published in the transactions of medical societies. Doing a large practice in accident surgery, he necessarily made numerous amputations. Twice he amputated at the hip-joint, in one instance successfully. The fatal case was for railroad injury and undertaken as a last resort, being, practically, but the completion of what the car wheels had done. Four times he made thyroidectomy, in each case successfully. He ligated the external iliac artery successfully for aneurism; the internal and external carotid, and most of the other arteries that require ligation for injury or disease. In one of his early operations he successfully undertook a procedure until then, as far as I can learn, never attempted. The case was one of arterio-venous aneurism at the bend of the elbow. After ligating the vessels involved he removed the entire sac of the aneurism and closed the incision, with excellent result. This operation he repeated several years afterward in a case of popliteal aneurism, with like good result. From a patient under the care of his colleague, the late Professor Rochester, he removed a spleen weighing over seven pounds, but with fatal result. He made and reported, with illustration, the Taliacotian operation for rhinoplasty, and several other plastic operations. As a surgeon he was exceedingly conservative. He made every attempt to save a limb before deciding to amputate, unless the necessity for immediate action was plainly manifest; and often when

amputation seemed to his associates the only thing, he successfully undertook measures which resulted in saving the limb. He exsected for traumatism, in more than one instance in each case, the hip, knee, ankle, shoulder, elbow and wrist, joints; and saved useful limbs. For disease he several times exsected the hip, shoulder and elbow joints, and in at least one instance in each case, large portions of the carpus and tarsus. In two cases he removed over four and one-half inches of the femur, securing useful limbs, in one instance with less than one inch shortening. He made and reported similiar operations upon the humerus; removing large portions of the shaft for gunshot or other injuries. He removed the entire fibula successfully, and the ulna with the elbow joint; saving an arm, which is the pride of its owner, and a useful member in all the duties of the household. Twice he successfully removed foreign bodies from the opening of the left bronchus; in one instance a piece of bone, in the other a bit of ivory. In operating for recto-vaginal fistula he instituted a procedure which was as successful as it was novel and ingenious. His operation for ovarian tumor, removing the tumor in some instances, etc., will be regarded as his greatest addition to surgery. His first operation by this method was made in April, 1869, and the case was published in the *Buffalo Medical and Surgical Journal* for June of the same year. He had previously (1866), for the first time in the history of ovariotomy, tied separately the vessels of the pedicle, cut the ligatures short and returned the pedicle to the abdominal cavity, with successful result. The suggestion of enucleation soon attracted attention and was adopted by many operators, both at home and abroad. It is, indeed, the only method by which some ovarian tumors can be removed. In hastily looking over the literature of the subject, I find reports of cases by this method in the English, German, French, Dutch and Russian medical journals. According to the late Professor Rochester, when, at the Medical Congress of 1876, in Philadelphia, Dr. Miner described his method of operating, he "attracted more attention and commendation than any other person or any other subject." Professor Thomas says in his work on Diseases of Women: "I have resorted to this method a number of times with good results, in cases which would have proved unmanageable by other means. It appears to me to be one of the most valuable of

all the contributions to ovariotomy which have emanated from this country." A few years ago Lawson Tait gave me this message: "Tell Dr. Miner that by his operation I have saved many lives." As a surgeon he never sought to be called brilliant; he preferred to be slow, calm, sure. He says in one of his clinical lectures: "Ask yourselves before undertaking an operation whether under similar circumstances you would wish a similar operation made." He was remarkably cool and self-possessed, even in the most trying situations. No emergency found him unprepared, and he was ready in the midst of an operation to change the entire plan previously determined upon, and undertake an entirely new procedure, necessitated by the conditions of the case. He was always disinclined to assert his claims of priority, though he might fairly have advanced them in many instances. We find him saying in one of his clinical lectures, of a certain procedure: "This plan was made this morning to suit the exigencies of this case. If it has been practiced by surgeons before I am glad of it, for I like it very much, and believe they must have operated better if they instituted this method; I shall not contend for the honor of the invention." He used few instruments, but knew the capabilities of those thoroughly, and had a fertile way of adopting means to the end. In one instance in an emergency he took up and ligated the radial artery with a pocket knife and an aneurism needle fashioned on the spot from a hair-pin. As one has said, speaking from a layman's point of observation: "With nerves of tempered steel, he had a gentle hand, a tender heart, a compassionate nature. The great surgeon was kind when he seemed cruel, sympathetic when he appeared indifferent, sensitive when he was deemed callous." I will be pardoned, I know, for introducing a personal incident at this point. A poor little newsboy had been brought into the Sisters' Hospital at night. Dr. Miner was summoned and I went with him. We found the little fellow's leg crushed off by the cars at the knee. The limb was amputated at the middle third of the thigh and the doctor took the little patient in his arms and tenderly placed him in bed. As we were about to leave the ward his feeble hand grasped the doctor's, and with hesitating breath he exclaimed: "Doctor, am I going to die? I want to see my mother if I am." Hastily turning away, with streaming eye and husky voice the

doctor grasped my arm, exclaiming: "You tell him; I can't." Dr. Miner had to a marked degree what some one has said to be essential to a true physician, "quickness of eye, thought, tact, invention; which are not to be learned by study, nor, unless by connatural aptitude, to be acquired by experience." The author of "Horæ Subsecivæ" has epitomized these qualifications in these words: "*Capax, perspicax, sagax, efficax.*"

With his professional associates he was always courteous and the soul of honor. If he found it impossible to agree with their diagnosis or treatment, he quietly and succinctly stated his views, but always in a way to save as far a possible their *amour propre.* By the young men of the profession he was regarded almost in the light of a father, and the title which he delighted to apply to them was equally delightful to "his boys."

Dr. Miner's personal appearance was such as would command attention in any assemblage of men. His countenance was open and attractive, his eye clear and pleasant, his smile always ready. He possessed a strong aversion to pomp and circumstance; was simple and unassuming in all his ways. He had a strong sense of humor which would crop out even amid the most trying surroundings. During the war he was, together with the late Professor Sandford Eastman, requested to go South after one of the great battles to assist in the care of the New York troops. After returning he published an account of his experiences, from which I take the following illustrative paragraph: "Every thing in the army must have a 'headquarters,' and a soldier carrying a musket must walk back and forth before the door. Since the soldier gave us no trouble, nor rendered us any assistance, we think perhaps the object is simply to *tend the musket.*"

In 1867 Dr. Miner in operating upon a charity patient pricked his thumb with a spicula of bone and received the specific infection which eventually terminated his life. Iritis and other symptoms followed, but it was not until 1873 that serious results were observed. On the morning of March 16 of that year he was called early to see a neighboring practitioner who was ill. He found in walking the short distance to his office that his left side was anæsthesic. His family and friends urged him to rest at home, but he insisted upon

seeing a few patients who would expect him, and making an operation which he had appointed, lest the patient should "worry," as he put it, over a delay. For some days the symptoms grew more serious, but under active treatment abated, and in less than a month he was much better. He never regained complete sensation in his leg, and there remained, even when in his best condition, some anæsthesia along the course of the ulnar nerve. The blow had been threatened, and the possibility of complete paralysis and helplessness in the midst of his active career was henceforth always before him. No murmur escaped his lips; his old cheerfulness did not leave him; he went about his work as if with a determination to conquer, by force of will, the enemy that was sapping his life forces. His lectures lost none of their clearness; his operations were undertaken and carried out with his usual calmness and readiness, but his intimate friends noticed a gradual failure of power and sadly anticipated the end. In the fall of 1880 he was so much worse that he was confined to his bed and the end seemed near at hand, but he rallied and during the winter session delivered a few lectures. Those of you who were present at the annual meeting in February, 1881, will remember the enthusiasm with which he was greeted when wheeled into this room in his invalid's chair that he might say to us a few words of welcome. How happy it made him—and how expressive it was of the affection borne him by the students—when they took his horses from his sleigh, the first time he appeared at the College that winter, and drew him in triumph up the hill to his home. His lectures in the session of 1881–82 were delivered sitting, and soon after the close of the session he presented his resignation of the chair which he had filled with so much honor. The resignation was reluctantly accepted and he was elected Professor Emeritus. When he could no longer engage in its active duties he seemed for a time to lose interest in life and its affairs. At times he would brighten up and something like his old humor would appear in his words and looks; but his mind seemed under a cloud much of the time. For several months before the end came he regained all of his mental vigor. He read the journals, discussed the new medical problems and delighted to have his medical friends about him. Late in the summer of 1886 I saw him for the last time. Our talk ran on many

things. He had just read the last production of his old friend, the late Professor Austin Flint, and we talked of the ideas so well set forth in that address. He remarked: "I have lain here idle all these years, but the world and medical science have moved along." I knew how it would have delighted him to have been in the midst of the progress, an active agent in its promotion, but no repining came to his lips. And so the end approached. And thus it came, suddenly, painlessly, as he had wished;—early on the morning of the 5th of November, 1886, he asked his son, who during all the years of his illness had been his almost constant companion and staff, to turn him on his side, said, "I am easier," and—was easier, for he passed with these words into the dreamless sleep which follows life's troubled, active day.

Of what this beloved friend and teacher was to me—his patience, his affection, his trust, his wisdom, it is not for me now to speak. What he was to his family who can adequately tell? He was at once the center of their affections, the guide and staff of their lives. They may each adopt these lines from *De Profundis:*

"The heart which, like a staff, was one
For mine to lean and rest upon,
The strongest on the longest day
With steadfast love, is caught away."

To them no words can bring comfort, we can only repeat:

"Perhaps the cup was broken here
That Heaven's new wine might show more clear."

Dr. Franzel, of Berlin, says that immoderate smoking, as a rule, agrees with persons for many years, although by degrees cigars of a finer flavor are chosen. But all at once, without any assignable cause, troubles are experienced with the heart, which compel the calling in of a doctor. Common cigars are not so liable to produce these effects as the finer flavored ones. Nor can the charge be laid upon cigarettes, although they produce evils of their own. The troubles seldom begin till after the smoker is over thirty years of age, and mostly attack him at between fifty and sixty. While it has not been determined what it is that makes smoking injurious, it is certain that the effect does not depend upon the amount of nicotine. —*Dietetic Gazette.*

The Medical Press

OF WESTERN NEW YORK.

Published by THE MEDICAL PRESS ASSOCIATION of Western New York.

EDITED BY

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WITH THE ASSISTANCE OF

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Subscription price: $2.00 per Annum.

All business communications should be addressed to DR. JULIUS POHLMAN, Business Manager, Buffalo Library Building; all others to the Editor, 510 Delaware Avenue.

S. Cecil Stanton, LONDON AGENT, 17 Southampton Row, London, W. C.

BUFFALO, N. Y., APRIL, 1888.

OUR NEW BUSINESS MANAGER.

The decease of Dr. Steele has rendered imperative the appointment of another Business Manager for THE MEDICAL PRESS OF WESTERN NEW YORK. The duties of this position will hereafter be discharged by Dr. Julius Pohlman, who will bring to bear upon his new work the same activity and energy which he has shown as Secretary of the Society of Natural Sciences, by which the society has been very greatly the gainer.

To him all subscriptions and business correspondence should be addressed, while all book exchanges and literary communications should be sent to the Editor. Prof. Pohlman's address is *Buffalo Library Building, Buffalo.*

THE ALUMNI ASSOCIATION MEETING, BUFFALO MEDICAL COLLEGE, FEBRUARY 28, 1888.

The business meeting of the Alumni Association was called to order at 10.30 A. M., Dr. Henry Lapp of Clarence, N. Y., presiding. Prof. M. D. Mann read a short address of welcome. He reminded the members of the death of Prof. T. F. Rochester and the great loss that they had suffered thereby. The Faculty had chosen, he said, an alumnus of the University, Dr. C. G. Stockton, as his successor, and were fully sustained in their judgment and choice by the

flattering reception accorded to him and the eminent success of his first course of lectures as Professor of Theory and Practice of Medicine. Dr. Mann wished the alumni to appreciate the Faculty's efforts to raise the standard of medical education.

The college course had, for the third time, been lengthened, and two branches were now added to the curriculum as necessary for graduation: Pathology and Medical Jurisprudence. "The Faculty can go no further than the alumni will follow." Roll call by classes revealed the following members present: '48. Horace Hoyt, East Aurora; H. P. Ellinwood, Attica. '49. E. Saunders, Randolph. '51. T. D. Strong, Westfield. '55. Milan Baker, Buffalo. '59. W. W. Potter, Buffalo. '61. W. B. Mann, Lockport. '62. J. S. Smith, Buffalo. '65. E. L. Shurley, Detroit; Henry Lapp, Clarence; O. A. Townsend, Randolph; M. Pickett, Corry, Pa.; L. W. Croup, North East, Pa. '66. Conrad Diehl, Buffalo. '67. E. C. W. O'Brian, Buffalo. '68. F. E. Bliss, Wethersfield Springs; L. F. Boise, Orchard Park. '69. G. W. Pattison, Buffalo. '70. C. S. Pugsley, Oakfield. '71. D. W. Harrington, F. Bradnack, J. J. Walsh, A. H. Briggs, Buffalo. '72. H. P. Hopkins, Ovid; H. G. Hopkins, Willard; F. E. L. Brecht, Robt. Habenstreit, P. W. Van Peyma, Chas. B. Knowlton, Buffalo. '73. F. A. Burthardt, Buffalo. '74. P. A. Quick, Kingston, Pa.; E. N. Brush, Philadelphia, Pa.; W. P. Clothers, Buffalo. '75. E. Whitcomb, Rochester. '76. W. J. Packwood, Buffalo; E. H. Putnam, North East, Pa. '77. E. R. Hopkins, Silver Creek; Jos. Haberstro, Buffalo. '78. C. G. Stockton, C. A. Ring, E. A. Storck, Buffalo. '79. B. F. Rogers, Buffalo; H. B. Stowell, Burdette; T. B. Lewis, Albion; L. E. Ellis, Detroit, Mich.; H. K. Morris, F. H. Bartlett, Olean. '80. J. M. Lewis, Elba; W. C. Barrett, J. J. Birmingham, F. O. Vaughn, Buffalo. '81. J. W. Bickford, Lockport; R. N. Blanchard, Jamestown; W. P. Brown, Bath; W. H. Parke, Buffalo. '82. J. H. Pryor, Ernest Wende, W. G. Gregory, Buffalo; E. W. Wollaber, Cambria. '83. B. G. Long, E. H. Long, W. H. Thornton, Bina H. Potter, Julius Pohlman, Buffalo; E. W. Bogardus, Fayfette; J. T. Harris, Tonawanda. '84. Jas. S. Potter, F. P. Vandenbergh, W. C. Callanan, H. H. Bingham, F. T. Pitkin, S. F. Cott, Buffalo; L. S. Bartholomew, Reading Centre; J. G. Kellogg, Hornellsville. '85. B. C. Cornwell, Alden; S. J. Spencer, Ellicottville;

D. W. C. Greene, T. F. Dwyer, E. L. Gager, J. Goldberg, Buffalo. '86. W. H. Bergtold, G. H. Penrose, W. H. Hoddick, C. P. Eller, G. A. Pohl, Buffalo. '87. A. J. Martin, Clarence; Wm. Meisberger, Jr., Alfred Day, Buffalo. President Lapp's address teemed with suggestions of interest and reminders of past neglect, some of which, it is to be hoped, were sharp enough to penetrate the atmosphere of indifference which seemingly surrounds so many alumni. It was a vigorous appeal to the graduates, individually and collectively, to keep prominent in mind their Alma Mater. She needs the influence, the support and the encouragement of all of her children. Thirteen years had passed since the Association's incorporation and "Where were the funds contributed or subscribed from which prizes are to be created, professorships and fellowships endowed, museums and laboratories established, buildings and equipments furnished and scientific knowledge published for the benefit of the profession and the world?" These are questions that ought to be of live interest to every alumnus, and should be restored from the midnight of neglect into which they have passed, to the midday of attention and activity. Drs. C. W. Stranahan, Erie, Pa.; D. L. McNamara, Syracuse, and A. B. Jackson, Oakfield, were elected honorary members. The Committee on Memorial reported an unusual number of deaths during the last two years, including two members of the first class graduated and one in the last. Drs. E. H. Long, Buffalo; E. L. Shurley, Detroit; E. L. Van Pelt, Toledo; E. N. Brush, Philadelphia, and Geo. M. Brewer, New York, were made members of this committee for the ensuing year. Satisfactory reports were received from the Treasurer and Executive Committee. The Committee on Prize Fund were pleased to report some progress; they still had the hundred dollar subscription given last year. After electing the following officers for the next year the Association adjourned: President, D. W. Harrington, Buffalo; 1st Vice-President, E. L. Shurley, Detroit; 2d Vice-President, J. H. Pryor, Buffalo; 3d Vice-President, T. D. Strong, Westfield; 4th Vice-President, E. M. Moore, Rochester; 5th Vice-President, P. M. Wise, Willard; Treasurer, E. C. W. O'Brian, Buffalo; Recording Secretary, H. G. Matzinger, Buffalo; Trustee, F. E. L. Brecht, Buffalo.

ALUMNI ASSOCIATION PRIZE.

An Annual Prize of Two Hundred Dollars is offered by the Alumni Association of the Medical Department of the University of Buffalo for an original essay on any medical or surgical subject. The prize is open for competition to Alumni of the Medical Department only. The author and subject of the successful essay will be announced, and the prize awarded at the regular Annual Meeting of the Alumni Association.

The committee reserves the right of not awarding the prize at all, if no essay of sufficient value is presented.

Each essay must be signed with a motto, and accompanied by a sealed envelope containing the author's name and address, and bearing on the outside the motto with which his essay is signed. All essays should be sent to the Secretary of the committee before January 1, 1889.

JOHN H. PRYOR, M. D., *Chairman*,
WM. H. THORNTON, M. D.,
DE LANCEY ROCHESTER, M. D., *Secretary*,
216 Franklin Street, Buffalo, N. Y.,
Committee.

* * *

IT will be seen that this number is almost entirely given over to work done at the recent Alumni Association meeting, for which we have two amply sufficient reasons: First, THE MEDICAL PRESS is the official depository for the transactions of that body, and, second, the papers that are read there are the best that are heard in this part of the country and do credit alike to author and journal. We do not wish to make invidious comparisons, yet we venture to say that the entirely novel plan of treating peritoneal adhesions proposed by Dr. Ford, and first presented to the Association at this meeting, will be a vast advance in the therapeutics of a very serious and distressing condition. We bespeak for all the contributions a very earnest and careful consideration.

* * *

THERE is no journal published in the world whose intrinsic value is so great as that of the *Index Medicus*, and none which involves such labor in preparation. Yet this invaluable periodical has a total

of *three hundred and sixty-three* paying subscribers! In such States as New Hampshire, North Carolina, Delaware, West Virgina, Alabama and others it has not a single subscriber! Is this also an index as to the medical culture of these States? It is a colossal disgrace that the enterprise is not better supported. It is also greatly to the credit of the publisher, Mr. Geo. S. Davis, of Detroit, that he is willing to continue its publication under such adverse circumstances.

* * *

We are in receipt of a satirical poem by Dr. F. Bradnack, of this city, entitled "Dr. Case's Handbill," which he has had printed for sale. (Price 25c.). Those who have read the doctor's poetical and other productions in The Medical Press should be interested in procuring and reading this keen satire upon quackery and imposture. It is not a little credit to Buffalo if it shall be found to contain a modern Juvenal.

* * *

Dr. Fred Sweetland, of Angola, met with an accident on the 23d of March last, which most unfortunately cost him his life. In jumping off a freight train before it had quite stopped he fell headlong into a cattle-guard, sustaining a very severe compound fracture of the skull. All that could be done was done immediately, but the brain had sustained an extensive laceration and he never recovered consciousness, dying the following evening. He was a graduate of the Class of '78, Buffalo Medical College.

McKell (J. B.) on a Non-Expensive Splint Dressing.—To make a cheap, strong and comfortable splint, the author recommends the following: Make a solution of gum shellac, 1 pound; sodii borate, 1 drachm; alcohol (98%), 1 pint. Old cloth, washed and dried, or new cloth, is then cut to fit the limb, when it is strongly heated and painted with the above solution until saturated. It is then moulded to the limb, and very soon hardens, and, at a temperature below 100° F., cannot be bent. Holes may be punched in the splint to allow evaporation from the skin to take place.—*Cincinnati Lancet-Clinic, February 11, 1888.—Analectic.*

Book Reviews.

THE RULES OF ASEPTIC AND ANTISEPTIC SURGERY. By Arpad G. Gerster, M. D. Illustrated with two hundred and forty-eight Photo-Engravings and three Colored Plates. Pp. 332. New York, D. Appleton & Co.: 1888. Buffalo, Otto Ulbrich.

This is the most practical work on Asepsis and Antisepsis that has appeared in the English language, and richly deserves a place on the shelves of every believer of modern (Aseptic) Surgery. Among the valuable features of the book are the number of illustrations, and the reports of cases. Useful points in technique appear on almost every page, among which we note the advice to discard the grooved director in dissections and instead to cut between two thumb forceps; to exercise great care in removal of tumors so that their contents be not squeezed out into surrounding tissues; and to expose large vessels, above and below a growth to be removed, before attacking the growth; the object being to give full control of hæmorrhage in case vessels be accidentally cut, or found to be involved in the diseased mass; the avoidance of friction upon arteries by inner ends of drainage-tubes; value of aseptic caps for patient in operations about face. Where there is so much that is good, it is very difficult to particularize, but the sections on the "aseptic treatment of tuberculosis," and of "gonorrhœa" appear to be especially deserving of praise. We differ with the author on the following points: The advice to give the *final* irrigation of the wound with the strong sublimate solution appears to be dangerous, from the liability to poisoning from the absorption of the solution in the closed cavity, and we prefer to flush out the excess of stronger solution with 1-5000 just before closing the wound. The advice to make the sublimate solution in *tin* basins, appears to ignore the consequent chemical decomposition of the salt, and its loss of protective power. Issue is also taken on the innocuousness of *acid* urine upon raw surfaces, as such has not been our experience; for we have seen "urine fever (as it is called by Mr. Reginald Harrison) produced promptly by acid urine, passing over abraded urethral surfaces. Again, silver wire is, in the cases that have come under our observation, a much better medium for closing the ring in the operation for radical cure of hernia then catgut (recommended by our author); in those cases in our experience

where catgut was used, the hernia returned; the catgut having been absorbed before firm union had taken place between the pillars of the ring and in the canal. With these few exceptions, the work receives our hearty endorsement. Type, paper and illustrations are superb, and the work as a whole is one of the greatest importance.

W. B. D.

CONTRIBUTIONS TO THE STUDY OF THE HEART AND LUNGS. By James R. Leaming, M. D., Emeritus Professor of Diseases of the Chest and Physical Diagnosis in the New York Polyclinic, etc., etc. New York: E. B. Treat. 1887. Price, $2.75.

This work of three hundred pages contains a number of articles reprinted from medical journals which the author has jumbled together without arrangement of revisions under the misleading title of "Diseases of the Chest." Tiresome repetitions are carelessly strewn along the text, and we are reminded that reproduction of a theme becomes an art in music and something else in medical literature. If another edition is called for and the author will separate, condense and evaporate his thoughts into the acceptable form of a monograph, the effort will bring profit to the publisher. Dr. Leaming has crowded too much material into this volume and done himself an injustice. But the patient reader will be repaid for perusal by gaining knowledge of value which is not found in text-books. Evidence of independent investigation along new lines is everywhere manifest, and the endeavor to demonstrate the practical application of new views not wholly accepted by the profession wins admiration and praise justly deserved. The devotion to Camman and the clear explanation of his original ideas call for commendation. At times it would seem that the importance of a theory was overestimated when tried by clinical test. Thus the so called "true vesicular murmur," about which he has written so exhaustively, is treated by reasoning sufficiently strong to render doubtful the old theory of causation. But we cannot agree with him in regard to its diagnostic importance, nor do we believe that its absence is frequently an indication of disease. Surely this respiratory murmur has been lightly studied, but careful examination will fail to reveal it in many healthy chests. If the vesicular murmur described by Larunce be only the sound of bronchial breathing changed by conduction through vesicular tissue, its diagnostic significance is not materially

altered. The articles on pleural râles are worthy of more consideration than they have received. Post-mortem evidence is constantly accumulating to prove the relation between lesion of the pleuræ and râles which are too often regarded as pulmonic in origin. The author might have dwelt with greater emphasis upon the confusing character of these intra-pleural sounds when heard at the apex, to differentiate between them and the signs of insipient phthisis. Although the commonly accepted explanation of the production of the crepitant râle is made to appear incompetent, and the theory of its intra-pleural causation more rational, the proof is not so conclusive as to win concensus of opinion. More errors in diagnosis made plain at the autopsy may convince the reader that the crepitant râle is not always distinctive, and that pleurisy with exudate is almost never absent when pneumonia is present. The causative relation between pleuritic adhesions and phthisis is well considered, and valuable information is given on an important subject. The comparative frequency of these lesions, as viewed post-mortem, is placed none too high for this climate. Records of 300 autopsies held in this city denote the absence of pleuritic adhesions in only ten cases. The mention of modes of treatment for their removal leaves unnoticed some of the most efficient means at our command. The consideration of the mechanical causes of the presystolic mitral murmur is of special interest at this time. The author argues ably for the irregular, incompetent action of the columnæ carneæ, as a scientific but theoretic explanation, until it has been practically demonstrated that such a condition can account for all direct murmurs at this valve. We are not in a position to deny the possibility of a valve, damaged by stenosis, causing a sound which is considered evidence of such incompetence. True, cases have been reported, where the diagnosis of stenosis has been made and a healthy valve found after death, but such mistakes are not surpising. and it remains equally true that stenosis is correctly diagnosed by accepting the direct murmur as a sign and associating with it symptoms of disturbed cardiac action. The writer could have made this puzzling question more interesting by reference to recent publications which show an attempt to differentiate between pathological conditions and the signs which announce them.

Several pages are devoted to a discussion of the meaning of a murmur heard over "Camman's area," so named by the author. This sign has long been recognized as indicating the direction of propagation and site of greatest intensity in mitral insufficiency; but aortic murmurs are sometimes transmitted equally well, a fact which the author omits to mention; nor does he describe "Camman's sign" as relative to be grouped with others of greater importance before hurrying to a conclusion. In the closing articles on special therapeutics some space has been given to a recital of the author's experience with chloride of ammonium and thuja occidentalis. The writer's experience with larger sedative doses of calomel administered during the initiatory stage of inflammatory affections has been so gratifying and so unqualifiedly asserted that one wonders why its adoption as a reliable measure has not become more general. Finally, the book deserves recommendation. It contains facts, opinions and suggestions, in many ways original, of which no student of physical diagnosis can afford to be ignorant. With all its demerits we welcome the book because it groups in lasting form many essays which are better appreciated each day.

A Manual of Physiology. By Gerald F. Yeo, M. D., F. R. C. S., Professor of Physiology in King's College, London. Third American from the Second English Edition. Pp. 758. Philadelphia: Blakiston, Son & Co. 1888. Buffalo: Peter Paul & Bro.

There is scarcely a better known or more deservedly popular text-book of physiology than Yeo's. Its predominant feature is terseness and perspicuity. It contains enough of the more advanced parts of the subject to ground the student well, and enough of the technique of experimental study to familiarize him with the methods in vogue; still it is not filled up with tiresome details which rather deter the student from a comprehensive study of the principles. The author's latest edition is not widely different from the previous one; it would, indeed, have lost had it been made so. The chapters on the nervous system have been made over and the results of recent labors here and there added. The illustrations constitute a feature which is at the same time attractive and valuable. Altogether the work seems to be the most compact text-book in physiology which the student can secure.

DISEASES OF THE HEART AND CIRCULATION IN INFANCY AND ADOLESCENCE. By John M. Keating, M. D., and Wiliam A. Edwards, M. D. Illustrated with photographs and wood engravings. Philadelphia: P. Blakiston, Son & Co. 1888.

In the preface to this work will be found strong reasons to explain its fortunate appearance. It was published because much needed, and there was no book, in the English language at least, which gave the objects considered satisfactory attention. To quote: "The work now presented by us is the only systematic attempt that has been made to collect in book form the abundant material which is scattered throughout medical literature in the form of journal articles," etc. During the past year the work has been published in the Archives of Pediatrics, and we rejoice that the material has been collected in convenient form. The task has been well performed, and this excellent treatise will surely become very popular. After careful perusal we have nothing to offer but praise and commendation.

THE YEAR BOOK OF TREATMENT FOR 1887. A Critical Review for Practitioners of Medicine and Surgery. Pp. 336. Philadelphia: Lea Bros. & Co. 1888.

This excellent work, like previous volumes of the same series, presents not only an account of the more important advances in treatment of disease, but a review of the same by authorities competent to criticise, by which the value of the subject-matter is much enhanced. It is under the supervision of such men as Dyce Duckworth, Reginald Harrison, Malcolm Morris, James Rossaud, Frederick Treves, that this work has been done; and this is of itself evidence that it has been well done. As a summary of the past year's work in all branches of medicine it is perhaps the most valuable volume to which we can refer.

A PRACTICAL TREATISE ON MATERIA MEDICA AND THERAPEUTICS. By Robert Bartholow, M. A., M. D., LL. D. Sixth Edition. D. Appleton & Co., New York: 1888.

It is unnecessary to make an extended review of so well known and so able a work as Bartholow's Treatise. The new edition has brought the work up to the times in all departments. Nearly one hundred pages of new matter have been added. It is only necessary to say that the new edition leaves little to be desired in the way of a complete treatise and reference book on the subject of materia medica and therapeutics.

THE INTESTINAL DISEASES OF INFANCY AND CHILDHOOD; PHYSIOLOGY, HYGIENE, PATHOLOGY AND THERAPEUTICS. By A. Jacobi, M. D. Clin. Prof. of Diseases of Children, College of Physicians and Surgeons, N. Y. Paper, pp. 301, price 25c. Geo. S. Davis, Detroit: 1887.

This is No. 5 of The Physician's Leisure Library for 1887. The name of Dr. Jacobi is sufficient guarantee for its excellence, and a perusal of the interesting volume will not detract from it. He has had over thirty years of experience, and presents the matter in neither a laboriously exhaustive nor technical, but short and thoroughly practical, manner. The first third of the book is occupied with considerations on food, its sources, constituents and comparative value at different times and under peculiar circumstances; with a chapter on "How to feed." Then follow chapters on the different portions of the alimentary tract; giving anatomical, physiological and pathological changes, functions, etc., with disorders and special diseases, including malformations, parasites and hernia. It is very complete in its way, and thoroughly readable.

BOOKS RECEIVED.

From E. B. Treat & Co., New York:
Diseases of the Heart: ALONZO CLARK.

From Wm. Wood & Co., New York; through J. H. Matteson, Buffalo:
Essentials of Chemistry: R. A. WITTHAUS.
Medical and Surgical Electricity: BEARD and ROCKWELL.
Atlas of Venereal and Skin Diseases (three parts): P. A. MORROW.

From P. Blakiston, Son & Co., Philadelphia, through Peter Paul & Bro., Buffalo:
Physiological Action of Remedies: STAR, WALKER & POWELL.
Nasal Polypus: EDWARD WOAKES.
Analysis of Urine: J. C. VAN NÜYS.
Diseases of the Heart and Circulation: KEATING AND EDWARDS.
Manual of Physiology. Third Edition. G. F. YEO.

From Geo. S. Davis, Detroit:
Chronic Metritis: GEORGES APOSTOLI.

From D. Appleton & Co., New York, through Otto Ulbrich, Buffalo:
Health Lessons: J. WALKER.
Diseases of the Skin: J. V. SHOEMAKER.
New York Medical Journal Visiting List.

From Geo. S. Davis, Detroit:
Modern Treatment of Headaches. A. McL. HAMILTON.

From F. A. Davis, Philadelphia:
Obstetric Synopsis. J. S. STEWART.

WANTS, EXCHANGES, &c.

To Exchange.—For other microscopic preparations. Mountings of nearly all the pathogenic bacteria. Also, cultivations of same in gelatine or agar-agar, for sale or exchange. Address the Editor.

The Medical Press
of Western New York.

Vol. III. MAY, 1888. No. 5.

SOME EXPERIMENTS ON THE PNEUMOGASTRIC NERVES.*

By Chas. S. Jones, B. S., M. D.

The pneumogastrics, being the largest and most widely distributed of the cranial nerves, have naturally afforded a wide and fruitful field for scientific investigation. Many interesting questions, however, have as yet remained unsettled; some of them not having been conclusively demonstrated, while others seem never to have been studied.

In the course of a series of experiments and observations conducted at the physiological laboratory of the University of Buffalo, it has been my object to record the results obtained relative to whatever I found that is new or unsettled, as well as to verify by personal efforts a few of the phenomena observed by others. To this end operations were made upon five dogs; and in each case about one inch of the pneumogastrics (either one or both) was removed from the cervical region, and the wounds sewed up. Careful observations were then taken, and finally post-mortem examinations were made.

It has been supposed by good authority that, after section of both pneumogastrics, death was due largely to a loss of bodily heat; and that the temperature became gradually lowered until the animal died. To elucidate this matter I have obtained the following temperature charts, which are herewith given in connection with the effects on the respiration, the pulse, and the condition in general. Medium sized dogs were in each instance employed.

Case I.—The dog was freely fed on fresh meat and crackers. He was then etherized, and an inch of both nerves removed. December 17, before operation, 11.30 A. M., temperature, 104°; 12,

* Graduation Thesis receiving Honorable Mention.

noon, after operation, 102$\frac{2}{5}$°; 2 P. M., 103°; 3 P. M., 103$\frac{3}{5}$°; respiration 12, pulse 210; 4 P. M.. temperature, 104$\frac{3}{5}$°; 5 P. M., 104$\frac{2}{5}$°; 7. P. M., 103$\frac{4}{5}$°; 8 P. M., 103$\frac{4}{5}$; respiration 10. Dec. 18, 9 A. M., 102$\frac{2}{5}$°; 5 P. M., 102$\frac{1}{2}$°. Dec. 19. 10 A. M., 102$\frac{1}{5}$°; 5 P. M., 102$\frac{3}{5}$°.; respiration 6. Dec. 20, 9.30 P. M., 103°; respiration 4; 7 P. M., 102$\frac{3}{5}$°. Dec. 21, 10 A. M., 102$\frac{3}{5}$°; respiration 4; 5 P. M., 102$\frac{2}{5}$. Dec. 22, 11 A. M., 102$\frac{1}{2}$°; 4 P. M., 102$\frac{1}{2}$°. Given 10 grains antipyrine, 4.05 P. M., 102$\frac{1}{2}$°; pulse 160; 4.15 P. M., 102$\frac{1}{2}$°; pulse 160; 4. 30 P. M., 102$\frac{1}{2}$°. Given 10 grains antipyrine, 4.45 P. M., temperature, 102$\frac{1}{2}$°; 5 P. M., 102$\frac{1}{2}$°. Given 15 grs. antipyrine, 5.15 P. M., 102$\frac{1}{2}$°; 5.45 P. M., 102$\frac{1}{5}$°; 8 P. M., 103$\frac{1}{5}$°. Hence temperature not reduced by giving thirty-five grs. antipyrine by the stomach. Both eyes affected with drooping and turning out of lids. Formation of white secretion on eye balls. Dog eats meat and other food, but soon vomits. Voice hoarse. Dec. 23, 11 A. M., temperature 102$\frac{1}{2}$°; 5 P. M., 101$\frac{4}{5}$°. Dec. 24, 9 A. M., 101$\frac{1}{5}$°; respiration 8, pulse 150; 11 A. M., 102$\frac{1}{2}$°; 4 P. M., 102°; respiration 9, pulse 150. Dec. 25, 11 A. M., temperature 102°; respiration 6, pulse 175. Breathing difficult with sonorous expiration; room was cold during night; evident hunger and thirst but food not long retained; 4 P. M., temperature 102$\frac{2}{5}$°; respiration 6, pulse 180. Dec. 26, 9 A. M., 102°; respiration 6, pulse 160; 3 P. M., 101$\frac{3}{5}$°. Dog much reduced in flesh. Dec. 27, 9 A. M., temperature 101$\frac{1}{2}$°; respiration 8, pulse 150; 4 P. M., temperature 101°. Dec. 28, 9.30 A. M., temperature 101°; 3 P. M. 101$\frac{4}{5}$°; respiration 14; pulse 140. Condition weak, but appetite good. Dec. 29, 9 A. M., temperature 99$\frac{1}{2}$°. Night having been cold and building not warmed, dog was nearly overcome with cold. Respiration 12; pulse 120 and feeble. Placed by register, fed, and watched two hours, during which time, at least, milk and small pieces of meat given were retained. 12, noon, temperature 100°; 4 P. M. 101°. Peptonized milk given per rectum. Dec. 30, 9.30 A. M., temperature 101°; respiration 10; ate and retained small amount meat and milk; 3.30 P. M., temperature 100$\frac{2}{5}$°; respiration 11; pulse 140. Dec. 31, 9 A. M., dog found dead.

A post-mortem examination was made in the presence of Professor Pohlman, and the following facts were noted: The wound had healed. The pneumogastrics had not united, but the cut ends were retracted more widely apart. Neither the pharynx nor

trachea were obstructed. In the œsophagus small bits of meat and some fluid were found. The stomach contained no undigested food. Throughout the intestinal tract there was only a small amount of fluid-like substance. The lower portion and surface of the liver next to the diaphragm were darkened and somewhat harder than normal, while a section through the lobes showed the interior to be of normal color. The gall bladder was filled. The lungs were in normal condition except that a slight trace of congestion could be seen in the right upper lobe; and with a bellows the entire lungs were easily inflated with air. That portion of the lobe still slightly affected would not sink in water, and the other portions of both lungs appeared to be in a perfectly healthy condition.

Case II.—In which was removed a section of the left pneumogastric. Dec. 17: Before operation, at 2.30 P. M., temperature $101\frac{2}{5}°$; 2.50 P. M., after operation 100°; respiration 14, pulse 150; 3.30 P. M., temperature $101\frac{1}{2}°$; 3.50 P. M, $102\frac{1}{5}°$; 4.20 P. M., $102\frac{4}{5}°$; 4.50 P. M., $103\frac{2}{5}°$; 5.20 P. M., $103\frac{2}{5}°$; 7.20 P. M., $103\frac{1}{2}°$; respiration 13; 8.05 P. M., temperature $103\frac{2}{5}°$. Dec. 18, 9 A. M., $101\frac{1}{2}°$; 5 P. M., $102\frac{1}{5}°$. Appetite good; no difficulty in eating and retaining food. Hoarseness. Dec. 19, 10 A. M., temperature $101\frac{4}{5}°$; 5 P. M., $102\frac{3}{5}°$. Dec. 20, 9.30 A. M., $102\frac{1}{5}$; respiration about 13; pulse also slow. General condition good. Dec. 21, no marked change. Dec. 22, left eye affected similarly as both eyes of Case I. Eats and drinks without disturbance. Dec. 23, appears well. Dec. 24, respiration 12; pulse 90. This dog has been kept in a cold room. Dec. 31, pulse 80. The pulse of a normal dog was counted and found to be about 150.

It is therefore to be observed that both the cardiac and the respiratory action were lessened. January 10th the dog was killed, and on post-mortem examination, it was found that the nerve ends had remained separated. The lungs, while they were not carnified, were to a considerable extent collapsed, so that they were not inflated fully without an unusual amount of force being applied; and on moderate extention the lung surface appeared as if covered with irregular lines of cicatricial tissue. The only other noticeable feature was that the pancreas was much larger than usual size. This dog had been constantly kept in a cold room.

Case III.—Exsection of an inch of the right nerve was made. Dec. 22: Before operating at 1.15 P. M., temperature 101°; 1.45 P. M., after operating 99⅕°; respiration 32, pulse 140; 2 P. M., respiration 18; 6 P. M., temperature 103°; 8 P. M., 102°. Food and water taken. Dec. 23, temperature 12 noon, 100⅗°; 5 P. M., 1.01°. Condition favorable. Dec. 24, 9 A. M., temperature 101⅕°; 4 P. M., 102°; respiration 17. Dec. 25, 11 A. M., temperature 102⅕°; respiration 14, pulse 112; 4 P. M., 102°. Dec. 26, 9 A. M., temperature 101⅕°; 3 P. M., 102°. Dec. 27, 9 A. M., 100⅘°; 4 P. M., 101⅘°. Dec. 28, 9.30 A. M., temperature 101°; 3 P. M., 101⅘°. Dec. 29, 10.30 A. M., temperature 102°. Appetite good and food retained. Dec. 30, 9.30 A. M., temperature 101°; respiration 18; pulse 95-100 and irregular. Dec. 31, 9.30 A. M., temperature 101½°; pulse 85 and irregular. Jan. 1, 10 A. M., temperature 101°; pulse 84. Light loss in flesh.

January 3, dog killed, and on examination found numerous portions of right lung collapsed, and two smaller portions in the left lung, affected apparently by contiguity. By means of some force on the bellows the lungs were inflated; they were not carnified. The liver was slightly discolored, but in the stomach and intestinal tract no perceptible pathological conditions or derangements were found. The cut ends of the nerve had not reunited. This dog had also been kept in a cold room.

Case IV.—A young dog from which an inch of both nerves were removed. Dec. 29: Before operation, pulse 140; respiration 30, and 1.30 P. M., temperature 101⅘°; 2 P. M., after operation, 97½°; respiration fell to 8 and became deep and sonorous; dog restless; gasping for breath; inspiration slow; expiration more sudden and violent; tongue dark; pulse about 160; 3 P. M., temperature 99⅕°; respiration 6; 4 P. M., 100⅖°; respiration 6; pulse 170; become quiet. Dec. 30, 9.30 A. M., temperature 102⅕°; respiration 4; pulse 200; 3 P. M., 102⅖°; respiration 4; pulse 180; eats and drinks, but soon vomits. Dec. 31, 9.30 A. M., 101⅘°; respiration 6; pulse 180; 3.30 P. M., 104⅗°. Drinks water and vomits a moment later. Jan. 1, A. M., dog dead.

Found on post-mortem: Pharynx and trachea not obstructed; œsophagus containing fluid and little solid particles of food; stomach empty and pale; lungs dark, congested and portions

carnified; liver slightly congested throughout; venous system engorged and blood very dark.

CASE V.—An inch of both nerves were removed. Dec. 29: Before operation; 2 P. M., temperature 102$\frac{1}{5}$°; respiration 28; pulse 135; 2.30 P. M., after operation, 97$\frac{1}{2}$°; respiration 18; pulse 240. Similar signs of want of air as manifested by Cases I. and IV. 3.30 P. M., temperature 99$\frac{1}{2}$°; respiration 11; pulse 200. Is quiet; mouth open, and gasping; tongue, dark. Dec. 30, 9.30 A. M., temperature 103$\frac{1}{5}$°; respiration 8; pulse 220; 3 P. M., temperature 102$\frac{1}{5}$°; Respiration 6; pulse 200. Eats and drinks, but soon vomits. Dec. 31, A. M., dog dead.

The post-mortem revealed that there had been no obstruction to the pharynx or trachea. Some liquid and solid foods were found in the œsophagus, which indicates, as in the former cases, paralysis of the œsophageal nerves. The stomach was empty and of a pale color; lungs somewhat congested in all the lobes, and carnified—portions being found to sink in water; liver more or less discolored; venous system full and blood dark; kidneys in this, as well as in previous cases, appear normal.

DEDUCTIONS.

In regard to the question, whether animal heat is lost after section of the pneumogastrics, it is interesting to note that in these five cases the average temperature of all the dogs taken before operation happens to be precisely the same; as the average of the last records taken before the animals died, viz., 102°. The first case, as shown by the chart, lost 3$\frac{3}{5}$° during a period of fourteen days. But this diminution is readily accounted for from lack of sufficient nourishment, and consequent great loss of flesh. Case V., however, which died after two days, suffered no loss of temperature; while Case IV., which died after three days, gives a history of 2$\frac{4}{5}$° rise. I therefore submit the conclusion, that death is not caused by loss of bodily heat after section of the pneumogastrics.

I also wish to direct attention to the fact that in each of these cases the sense of hunger and thirst were not destroyed: That section of one nerve neither destroys nor seriously endangers life, so far as we may infer from Cases II. and III., in which the left and right nerve respectively were cut, and the subjects exhibited no

very prominent features of disturbance, only a slowing of the heart's action, and of respiration: That section of one nerve causes greater disturbance of the lung on same side: That, after operation, the temperature first fell, then after about an hour continued to rise for a few hours, when it finally returned again to normal: That at first there is manifested a sense of want of air; but later no apparant distress: That respirations fall from 25 or 30 to 6 or 4 per minute, and usually the heart's action is accelerated as the respirations are retarded, and, vice versa: That the temperature is normally highest at about 11 A. M. and 4 P. M.: That Case I. with both nerves cut, developed trouble in both eyes after about six days; and that Case II. with less nerve cut exhibited a similar condition in the left eye. This latter is a point upon which I find no literature.

Prof. Flint states that after section of the pneumogastrics, digitalis has been found to have no effect on the heart's action; and Prof. H. C. Wood observed that cathartics, under like conditions, would not produce purgation. I was consequently interested as to whether antithermics would lower the temperature. I accordingly administered to Case I. 10 grains antipyrine; and, getting no result after a half-hour gave 10 grains more. A half-hour later I gave 15 grains, and taking the temperature frequently, found, after two or three hours more, no diminution,—having given 35 grains.

One most interesting featute of the experiments still remains to be discussed. So far as I can learn, authors have agreed in stating that after section of both pneumogastrics death always ensues in from one to six days,—unless, as in a case cited by Flint, the cut ends reunited. It is, therefore, with a degree of pleasure that I report one case which lived fourteen days; and that on examination we found the ends had not reunited. The post-mortem also demonstrated that resolution in the lungs had taken place almost completely; and that the suspended normal functions were being restored; for the stomach was known to have taken and retained food, though at the post-mortem no undigested material was found either in the stomach or the intestinal tract; and there had been evacuations from the bowels. Hence digestion of food, in small quantities, must have, towards the last, occurred. The respirations had

returned from four to fourteen per minute; and the heart beats from two hundred and ten had come down to one hundred and twenty.

Having lived thus long, and having shown these unmistakable signs of improvement, is it not reasonable to believe that, had the animal not been twice reduced by exposure to cold (on the fifth and twelfth nights), and had nutrition been more carefully attended to, especially before the dog had become so far exhausted, the chances for recovery would have been greatly increased if not made entirely possible?

The two other cases in which both nerves were divided, Nos. IV. and V., died within the limits of the period of time which usually proves fatal, and manifested the common pulmonic changes, and lack of oxidation of the blood. These tend to show what was the probable condition of Case I. before resolution had taken place in the lungs.

With this encouragement and data to work from, it will at a subsequent time be interesting to attempt getting a complete recovery by making another trial under the most favorable conditions.

By what other nerves, or system, the functions of the pneumogastrics may be assumed,—as in this case they evidently were assumed,—I cannot say. Is it, however, too much to presume, that the functions of the pneumogastrics, when destroyed, may be taken up and performed more or less perfectly by the sympathetic system?

Observations on Insanity.—Dr. Hoff, of St. Louis, draws attention to a diagnostic point of interest in general paralysis of the insane. He notices that the patient almost invariably exhibits the most absurdedly extravagant ideas of his personal riches, influence and importance. He is possessed of untold wealth, land, horses, houses, and bestows them on you or others in a most lavish manner. Whereas, in mania, without paralysis, though the flights of fancy may be ridiculously extravagant, there are generally an underlying suggestion of reason and probability, a method in his madness and enough of intellectual vigor to defend his delusions. These observations are interesting, and they are certainly true in a large majority of instances.—*Medical World.*

DISLOCATIONS OF THE SHOULDER.

By E H. Norton, M D.

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[Read before the Physicians' Club.]

The gross anatomy of the shoulder-joint may be described as follows: The joint is situated beneath and protected by the scapulo-clavicular arch. The articular surface of the head of the humerus is hemispherical in form, directed upwards, inwards and backwards, and is markedly out of proportion to the opposing surface of the glenoid cavity. The capsule of the joint is attached to the margin of the glenoid fossa and to the anatomical neck of the humerus. The capsule is so lax that when the muscles are dissected off and air is allowed to enter the joint cavity, the head of the humerus is separated an inch or so from the glenoid fossa. The capsule is more dense above and behind than below and in front, and is strengthened above by the coraco-humeral ligament and the long head of the biceps; behind by the tendons of the supra-spinatus, infra-spinatus and teres-minor; in front by the tendon of the subscapuloris, and below by the long head of the triceps. The joint is covered and protected by the deltoid. The deltoid, latissimus dorsi and pectoralis major muscles, acting with the short scapulo-humeral muscles, tend to keep the head of the humerus in its position.

The causes of shoulder dislocations are the same as in dislocations of the other joints. The most common cause is indirect violence received upon the hand or elbow; and the force, being transmitted to the shoulder, causes the capsule to give way. Next in frequency is direct violence applied to the head or neck of the humerus, driving the head from its place. Occasionally a shoulder is dislocated by muscular action, as in turning in bed, in swimming, and the like.

The predisposing causes are the shallowness of the glenoid cavity, the disproportion between it and the large hemispherical head of the humerus, the laxity of capsular ligament and the long leverage afforded by the arm and forearm when rigid and extended.

R. Clement Lucas gives the signs common to all forms as follows: "There are certain signs of dislocation at the shoulder-joint

which are common to all forms. These are: the angular appearance of the shoulder and the depression beneath the acromion; the projection of the elbow from the side; the limitation of both voluntary and passive movements; the increased vertical measurements when a tape is carried through the axilla and over the shoulder (this is known as Callaway's circumferential test); inability to bring the elbow to the side when the hand is directed to the opposite shoulder (Dugas' test); a ruler applied to the dislocated humerus may be made to touch the acromion and the external condyle at the same time (Hamilton's test); and, finally, the rounded head of the humerus will be found lying in some abnormal position."

In addition to these characteristic signs there is more or less pain, numbness, tenderness, swelling, etc. There is usually some change in the measurement taken between the acromion and the external condyle. There is commonly shortening, except in the sub-glenoid variety, where there may be an increase in the length of the limb.

The principal varieties of shoulder dislocations are those in which the head of the bone lies in front of, or behind, or below the glenoid cavity. These are best designated as sub-glenoid, sub-spinous, sub-coracoid or sub-clavicular. A few other rare forms occur, one or two cases of each of which have been described, such as supra-coracoid, supra-acromial, partial, etc. As to the relative frequency of the different varieties almost all consider the sub-coracoid the most common. Speaking of frequency of sub-coracoid and sub-glenoid dislocations, Flower says that only one in ten is of the sub-glenoid variety. Holmes stated that sub-coracoid dislocations are common, sub-glenoid are rare, sub-clavicular and sub-spinous very rare. Agnew and Lucas place sub-coracoid first in frequency, while Hamilton gives 117 cases observed by himself, of which forty-one were recognized as sub-glenoid, thirty-three as sub-coracoid, a very small proportion as sub-clavicular, two as sub-spinous, and the remainder were not accurately diagnosticated. The pathological condition of the various forms is fairly well described by different authors.

In "Holmes' System of Surgery" the following description of the condition existing in sub-coracoid dislocation is given: "The

head of the humerus lies on the anterior surface of the neck of the scapula, immediately below the coracoid process, in front of, internal to, and rather lower than its normal situation. That part of the anatomical neck which separates the articular surface from the great tuberosity rests upon the anterior edge of the glenoid fossa. The sub-scapular muscle is raised from the neck of the scapula and stretched over the front of, or above the head of the humerus. The muscles from the back of the scapula, supra-spinatus, infra-spinatus and teres-minor, are drawn tightly across the glenoid fossa, or one or more of them may be ruptured or detached from the bone. A portion or the whole of the greater tuberosity is frequently separated. * * * * The long head of the biceps is rarely or never injured. The capsular ligament is lacerated more or less extensively, anteriorly and inferiorly, the upper end of the humerus having escaped through the aperture."

Hamilton gives the pathology of sub-glenoid dislocation as follows: "In this accident the head of the bone is made to press against the capsule below and immediately in front of the long head of the triceps until the capsule gives way, and continuing to descend in the same direction it is finally arrested by the triangular surface of the inferior edge of the scapula, immediately below the glenoid fossa. Owing to the pressure of the tendon of the triceps behind it occupies a position also a little in advance of the center of this triangle, or rather upon its anterior edge, so that it rests more or less upon the belly of the sub-scapularis muscle. The capsule is generally torn quite extensively, especially below and in front, and the tendon of the biceps may be broken asunder or detached completely from its insertion; the supra-spinatus is stretched or lacerated; the infra-spinatus, sub-scapularis and coraco-brochialis are put upon the stretch, the sub-scapularis being also sometimes completely torn from its attachment to the head of the humerus. * * * * The deltoid is also placed in a condition of extreme tension."

In the other rarer forms—sub-clavicular and sub-spinous—I am unable to find any good description of the pathological condition beyond the relative position of the bony parts; but it is fair to suppose that there co-exist extensive laceration of the capsule and rupture of the opposing capsular muscles.

Treatment.—When one attempts to look up the different methods by which reduction of shoulder dislocations have been attempted, he will find them as numerous and as varied as obstetrical forceps or vaginal specula. Nearly every surgeon, from Hippocrates to the present generation, has devised a special method, which has subsequently fallen into disuse only to be rediscovered by some later surgeon. There is a great difference in cases of the same variety of dislocations as to the ease with which they are reduced. Some are reduced spontaneously during sleep or during the slight manipulation practiced by the surgeon while making an examination; others only yield to powerful extension with pulleys and counter-extension. Some yield to gentle traction in a new direction, or to manipulation after violent extension has failed. The length of time that has elapsed since the injury increases the difficulty and danger of reduction. After a short time swelling takes place, and later on adhesions are formed, firmly binding the head of the bone in its abnormal position. In ancient dislocations sufficient force may be used in breaking up these adhesions to cause a fracture or to rupture the axillary blood-vessels.

Previously to the introduction of anæsthetics the reduction of dislocations of the shoulder was a much more difficult matter, and the number of failures much greater than at the present day. Formerly it was thought that the obstacle to reduction was chiefly muscular action, but now it is known that the principal obstacle is the action of the untorn portion of the capsular ligament and the tendons of the muscles which reinforce it. Anæsthesia has taken the place of the old methods of producing muscular relaxation by bleeding to faintness, depressants, etc. The occurence of unreduced dislocations at the present time is due more to the fact that they are not diagnosed than to failure of methods of reduction. With the aid of anæsthetics, and with a correct knowledge of the resisting force, reduction is not usually found difficult.

An analysis of all the various methods employed by different surgeons will place them in either one of two classes; one method differing from another in some slight detail. The two classes comprise:

First—Cases where forcible traction is used to pull the head of the bone into its normal position, and,

Second—Cases where but little force is used and in which reduction is accomplished by manipulation or rotation.

Let us first examine some of the best-known methods of extension. Probably one of the most universally used is that called Cooper's method. Sir Astley describes the method as follows: "The patient should be placed in the recumbent position upon a table or sofa, near to the edge of which he is to be brought. The surgeon then binds a wetted roller around the arm immediately above the elbow, upon which he ties a handkerchief; then he separates the patient's elbow from the side, and, with one foot resting upon the floor, he places the heel of the other foot in the axilla, receiving the head of the os humeri upon it while he is himself in a sitting posture by the patient's side. He then draws the arm by means of the handkerchief steadily for three or four minutes, when under common circumstances the head of the bone is easily replaced; but if more force be required, the handkerchief may be changed for a long towel by which several persons may pull, the surgeon's heel still remaining in the axilla. I generally bend the forearm nearly at a right angle to the os humeri because it relaxes the biceps and consequently diminishes its resistance."

Others have varied this by beginning traction in a line more outward from the body, and then sweeping the arm across the chest.

The method used by Skey is on the same principle, but he substitutes for the heel in the axilla an iron knot, from which project two pieces of iron which give attachment to a couple of bands, and these are secured to a staple at the head of the bed. With the use of this, powerful extension, leverage and counter-extension may be obtained.

Another method, advocated by Cooper, in which the same principles are used but which is not so successful, is that of seating the patient in a chair. The surgeon places his knee in the axilla of the affected side, the foot resting on the chair; the elbow is depressed, and, by this traction and the leverage afforded by the knee, the head of the bone slips into place.

In the above-mentioned methods the traction is made in a downward direction, and more or less leverage is used over some body in the axilla as a fulcrum.

In other methods the traction is made in a lateral direction on a line about at a right angle to the axis of the body, the only especial difference between them being the way in which counter-extension is accomplished. Hamilton directs that one foot of the surgeon should be placed in the axilla and the ball of the other on the acromion. N. R. Smith makes counter-extension from the opposite wrist. Others use a band pressing around the chest, or a piece of canvas with a slit in it, through which the dislocated limb is passed. Kelly recommends that the patient should be laid along the edge of a table. The surgeon, standing between the body and arm, holds the patient's wrist against his own hip, and then turning partially around makes lateral extension. Vertical extension is another plan, and bears the names of LaMotte, White and others. The former makes traction directly upwards, parallel to the side of the head and neck, and uses the hand or foot over the acromion for counter-extension. Here probably there is also some leverage exerted with the acromion acting as a fulcrum. White, by means of pulleys attached to the affected wrist, draws the patient towards the ceiling.

In all of the above plans, whether traction is made upwards, downwards or laterally, success has attended in most cases. By some this is accounted for by the extreme mobility of the scapula. They claim that the traction should be exerted in a line vertical to the glenoid surface, which is practically the same as a continuation of the line of the spine of the scapula, and that in whatever direction the extension is made the scapula rotates so that this is accomplished.

We now come to the consideration of the second class, or reduction by manipulation. The primary idea of this plan is that the obstacle to reduction is due not so much to muscular tension as to the resistence offered by the untorn portion of the capsular ligament and the locking of the head of the humerus behind some bony prominence.

In order to overcome these obstacles it is only necessary to make a series of manipulations which shall relax the capsular ligament, release the head from its bony obstruction and guide it into its normal position. Some advocate that the manipulations should be made in the direction of the least resistance, and that finally the

head will slip into place. Others have formulated distinct rules for the motions which must be gone through with. Of these it will only be necessary to mention two—the method of Prof. H. H. Smith, of Philadelphia, and that of Kocher, of Berne.

Smith's method consists, first, in flexing the forearm upon the the arm, while at the same moment the elbow is lifted from the body; second, in rotating the humerus upwards and outwards, employing the forearm as a lever; and, third, in reversing these last movements, that is, rotating the humerus downwards and inwards, while at the same moment the elbow is carried to the side.

Kocher's method is thus described by Hamilton, who takes it from the original article published in 1882: "Kocher flexes the forearm upon the arm; carries the elbow against the side of the body; abducts the hand in order to rotate the humerus outward until resistance is experienced; carries the elbow forwards, upwards and slightly inwards, while the arm is still flexed at a right angle and the hand maintained in a position of forced abduction; then the arm is rotated inwards, and the hand is carried upon the sound shoulder. All these manœuvers are to be executed as slowly and gently as possible."

Prof. Gunn, of Chicago, used almost the same method, except that the arm was to be raised to the horizontal and carried somewhat backwards.

The after-treatment consists in rest of the part for two or three weeks in a position which will prevent redislocation, antiphlogistic measures if necessary, then active and passive motion, massage, electricity, etc.

The question now arises which of these various methods is the best to employ. Probably no one of them will be successful in every case.

Manipulation is easy to use, little or no force is necessary; there is but slight danger of injury to the axillary vessels, and it can usually be employed without an anæsthetic. Should this fail any of the methods of traction may be used, but preferably downward extension with the heel in the axilla. In ancient dislocations it is doubtful if manipulation will often succeed. There it will be necessary to use rotation to break up the adhesions and powerful extension

and counter-extension. Cases that remain unreduced after all methods fail, owing to firm adhesions or to button-holing of the head of the humerus through a slit in the capsule, call for operative interference; and this I think is now considered justifiable under antiseptic precautions.

Prof. Lewis A. Stimson has collected forty-four cases of rupture of the axillary vessels following reduction of this dislocation: in more than half of these cases the dislocation was recent, less than three weeks. In speaking of the cause of this accident he says: "It becomes evident that in dislocation of the shoulder the accident is most to be apprehended when the elbow is raised in abduction to the height of the shoulder, or is carried across the chest and face in a wide movement of circumduction, and for this reason: that in these movements the dislocated head of the bone is turned downwards into the axilla, and the vessels which lie upon its inner side are pressed down before it and forcibly put on the stretch. Even when the head of the humerus is in its socket the axillary vessels are put on the stretch when the arm is widely abducted, and can be readily verified by observing the arrest of the radial pulse when the arm is raised and carried backwards."

My own experience in the reduction of these dislocations is limited to twelve cases, in all of which Kocher's method was successful with one exception. The details of these cases are as follows:

NO.	NAME.	VARIETY.	ANÆSTHETIC.	REMARKS.
Case 1.	Annie L.	Sub-coracoid.	None.	Easily reduced by first full trial.
" 2.	E. L. C.	"	Ether.	Patient insisted upon anæsthetic; easily reduced.
" 3.	John M.	"	None.	Easily reduced by first attempt.
" 4.	Jane R.	"	"	First trial successful.
" 5.	Henry R.	"	"	Easily reduced by first attempt.
" 6.	Peter F.	"	Ether.	Demanded anæsthetic; easily reduced.
" 7.	Mr. A.	"	None.	Easily reduced.
" 8.	Geo. M.	"	"	Reduced on first trial.
" 9.	Edward B.	"	No note.	No difficulty in reduction.
" 10.	Chas. K.	"	Ether.	Easily reduced.
" 11.	Milton G.	"	No note.	Dislocation two days old; no difficulty in reduction.
" 12.	Daniel S.	Sub-glenoid.	Ether.	Kocher's method unsuccessful; then anæsthetized and dislocation reduced by heel in axilla.

TEXAS Colonel ("Texas Siftings") to physician whom he has just met: "I am so weak I can hardly walk: what shall I take?" Physician (who knows him): "Take a hack."—*Medical Standard.*

VEGETARIANISM: FROM A MEDICAL STANDPOINT.

By F. Bradnack, M. D.,
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"*Hic tamen hanc mecum poteris requiescere noctem*
Fronde super viridi. Sunt nobis mitia poma,
Castaneæ molles, et pressi copia lactis."
—Virgil.

"*This species of food (fruits, grains, and roots) is that which is most suitable to man; which is evidenced by the series of quadrupeds, analogy, wild men, apes, the structure of the mouth, of the stomach, and the hands.*"—Linnæus.

It seems to be approved by experience that a spare, almost a Pythagorean diet, is most favorable to long life.—Lord Bacon.

We might as well eat the flesh of men as of other animals.—Diogenes.

All wholesome food is caught without a net or trap.—William Blake.

We have known various persons who have been delivered from painful and obstinate disorders by giving up the use of animal food entirely; and others in whom disorders of the nervous system and the chest had been very much relieved by the same procedure.—Edinbugh Medical and Surgical Journal: (No. 166.)

Soft acorns were their first and chiefest food,
And those red apples that adorn the wood.
—Lucretius.
Book 5: L. 997.

But nourish life with vegetable food,
And shun the sacrilegious taste of blood.
—Pythagoras.

Ah! how much more innocent, sweet, and healthful is a table covered with these (plants) than with all the reeking flesh of slaughtered and butchered animals.—Ray: (*The Botanist.*)

Si tibi deficiant medici, medici tibi fiant,
Hæc tria; mens hilaris, requies, moderata diæta.
—Schola Saler.

In view of the fact that for some time past there has been not only in the medical, but in the secular press, more or less discussion, both in England and in this country, upon the subject of *Vegetarianism*, it occurred to the present writer that a brief study of the question from the standpoint of the *Physician*, might prove not only timely, but practically useful.

A second consideration which served to bring the subject to my mind was a remark made a short time ago by a medical man, a personal friend of my own. This remark set me to thinking upon, and examining into, the question which forms the subject of this essay. After some discussion of the matter, "I believe," said my friend, "that the day will come when the eating by man of animal flesh will

by civilized nations be regarded with as great horror and disgust as the practice of cannabalism is regarded at the present time."

Without expressing positive assent or dissent in respect to this extreme opinion, I shall endeavor to here present briefly various facts and considerations which *appear* to justify and recommend the practice of vegetarianism by man.

Thoughtful men know that it is only by argument that scientific truth is finally reached, there being no royal shorter cut to its attainment. And, inasmuch as all truth and light are useful to, and all error and falsity inimical to the best interests of mankind, no apology for the following pages is considered necessary.

For the sake of perspicuity, it will be convenient to glance at the different aspects of this somewhat complicated problem under the following seven heads, beneath which its salient points may be considered:

First.—The Theological Argument.

Second.—The Anatomical Argument.

Third.—The Physiological Argument.

Fourth.—The Pathological Argument.

Fifth.—The Psychological Argument.

Sixth.—The Æsthetic Argument.

Seventh.—The Sanitary and Utilitarian Argument.

It being the custom now-a-days in writing upon any subject, medical or other, to begin with the foundation of the world, and in some cases even before that period, I will in part follow this custom by going back to the Garden of Eden, and the historical, or supposed historical account of the genesis of man.

THE THEOLOGICAL ARGUMENT.

Without diving very deeply into the stormy waters of theological discussion, it is fair to assume (from the fact of no mention being made in the Scriptures of any supralapsarian flesh-eating) that our forbears, Adam and Eve, were, before the fall, vegetarians; which assumption is apparently borne out by the recorded statement that Satan beguiled our universal mother by means not of animal, but of vegetal food. In other words, if we accept the Old Testament teaching literally, it was not a Bologna sausage or a veal cutlet to which the arch-enemy directed Eve's attention, but an apple.

Passing rapidly down until we come to the Israelitish nation, there is much to be said on the question of the Mosaic laws in relation to the eating of animal tissues. A recent able writer in the *Fortnightly Review* has called attention to the extraordinary coincidence of the similarity of the conclusions reached by modern sanitary science with the prohibitions and ordinances of the Mosaic sumptuary laws. In this connection, and especially as they indirectly support the present argument, I cannot do better than to quote the precise words of this author:

"While," says he, "the laws for regulating the conjugal relations were evidently intended to insure the continuous reproduction of strong and healthy Israelites, the dietary and hygienic laws were as obviously designed for the maintenance of their health and strength and the protection of their bodies against disease. Thus we find included among the prohibited sources of food all carnivorous animals, the rodents, the carnivorous and carrion-eating birds, reptiles, amphibia, and mollusca; a list comprising a complete group of beasts, such as the swine, the mouse, the rat, the cat, and the dog, etc., known to be perfect foci of *trichinæ* and other parasites. The communicability to man of parasitic diseases from animals used as food has long been placed beyond all doubt, it having been established that the parasite is simply transferred from the flesh of the beast to that of the man, in which it develops with frequently fatal results. The prohibition of mollusca and crustacea is also of considerable prophylactic value. Not a few shell-fish, such as the common mussel, and even the oyster, are at times capriciously unwholesome, and even poisonous; and the crustacea are not merely the foulest feeders, but their flesh is certainly hard to digest."

Again, referring to the use of *blood* as an article of human food (and, by the way, much more of it is eaten, in the form of black-puddings, German sausage, etc., than most people imagine), he alludes to the fact pointed out by a writer in the *Journal of Science*, that "the blood in its normal condition almost invariably contains noxious elements. From the very nature of the double office of the circulatory system this must be so; for while, on the one hand, the blood serves to renew the various parts of the system after their ordinary wear and tear, on the other hand it has to carry

off the natural waste of the tissues. This waste or refuse is ultimately eliminated by means of the kidneys, the sudiparous glands, etc., and then appears in its avowed character of excrementitious matter; but it must always be, to a certain extent, present in the blood, and in the event of any derangement of the action of the kidneys, accumulates in considerable and highly poisonous quantities. It must, therefore, be evident that the blood is always an undesirable article of food, especially as it is impossible when an animal is slaughtered to separate the arterial from the venous blood, which would be the only means of overcoming the difficulty."

So we are compelled to admit that, aside from all qualmish and æsthetic scruples, science, in the case of animal blood coincides with the teaching of the Scriptures, and raises the red signal flag of "danger." It is also satisfactory to find that the teachings of science accord not only with the Bible but with what may rightly be called the instincts of civilized man; for who among us could sit down with relish, or without disgust, to a dish of blood? Nevertheless, he practically does this who sits down to a Bologna sausage, and he actually and positively does it who partakes of the traditional black-puddings, which still (in spite of Hygiea) exist not only in Europe but in America, and not merely as a tradition, but as a palpable and sanguinary fact.

They who acknowledge as sacred and authoritative the teachings of the Old Testament, will be compelled to admit that in the following verse (Genesis i., 29) it is made plain what kind of food man's Maker intended he should eat: "And God said, Behold I have given you every herb bearing seed which is upon the face of all the earth, and every tree in the which is the fruit of a tree yielding seed;—to you it shall be for meat" (*i. e., food*).

I have no desire to carry this point too far, or to insist that at the present day a man commits a criminal act in eating flesh; for, no doubt it is allowable; but, for all that, there may be a vast difference between what God's providence permits, and what God would have man to do, and which man would have done had he not (in St. Paul's words) "refused to retain God in his knowledge." A father may tacitly permit certain acts in a son, which acts, were his paternal advice asked, he would neither commend nor advise.

And this, I apprehend, is, theologically, the case with flesh-eating, fairly interpreted from the text of the Old Testament. It was certainly never commanded by man's Maker, and is, at best, merely permitted.

"Three men" (says the Talmudic proverb) "are beloved of God: he who is of a sweet temper; he who is moderate in his habits; and he who does not obstinately adhere to his first notions."

THE ANATOMICAL ARGUMENT.

It is popularly assumed that the conformation and arrangement of human teeth indicate that Nature intended man to be at least partly a flesh-eater. Now this assumption (as has been shown by Milne-Edwards) is based on an anatomical fallacy. Without going into minute and tedious details, it will suffice for the present purpose to remark that human teeth in their totality resemble far more closely the teeth of apes than those of any other animal. "The masticatory organs" (says Lawrence) "of the orang are so closely similar that they might easily be mistaken for human; the only difference being that the cuspids are relatively longer and more pointed, and the elevations on the grinding surfaces of the molars are more prominent. Now the ape, when in a state of nature, and when left free to choose his own food, *is a vegetarian.* His diet consists chiefly of fruits and roots. He is not a carnivorous, but a herbivorous animal. In case any man should be troubled with doubts regarding the strength and muscle-producing power of a vegetal diet, he needs only to glance at the gorilla. This animal is capable of bending across his knee the thickest rifle-barrel as easily as a man of ordinary strength would bend a small green stick. And, after the thoughtful student has looked at the gorilla, he might cast an observant eye upon the horse, whose immense power in traction is got entirely from vegetal food. Then, after having reflected a little on the horse, he might give a moment to the contemplation of the elephant, where the vast muscular development is built up and sustained entirely by vegetal nutriment. There are many other points in which man, anatomically considered, approaches nearer to the herbivora than the carnivora. To summarize them briefly, it may be averred that in the form of the incisor, cuspid, and molar teeth; in the articulation of the lower jaw; in the form of the zygomatic arch; in the size of the

temporal and masseter muscles, and salivary glands; in the length of the digestive canal; in the size and anatomical structure of the colon and cœcum; in the size of the liver; and in the number of sweat glands, man approaches much nearer to the herbivorous than to the carnivorous animals.

While on this head, the opinion of Thomas Bell (*Anat. Physiol. and Dis. of the Teeth*) is worthy of notice. "It is, I think," (says he) "not going too far to say that every fact connected with the human organization goes to prove that man was originally formed a *frugivorous* animal. This opinion is chiefly derived from the formation of his teeth and digestive organs, as well as from the character of his skin, and the general structure of his limbs."

It is not disputed that both man and also the quadrumana are able to substitute, with apparent impunity, animal for vegetal food. On the contrary, this is admitted. But this admission merely allows that, though anatomically and physiologically adapted to a vegetal diet, there exists in their organs a certain range of adaptability by reason of which they are enabled to deviate considerably from their true nature; without any *immediate* evil effects. But it is a retrograde and degenerative metamorphosis, and not an improvement; for it surely will be admitted that neither man nor any other animal can improve the plan upon which the Creator has constructed him. The natural habits of animals can be artificially changed, and often are so changed by man, but invariably to the injury of the animal. A lamb, during a long sea voyage, was induced to live on the flesh of animals; and so strong was the force of habit that it finally refused to crop grass. Herodotus also tells us that the Pœonians fed their horses and oxen on fish. Parrots, likewise, which are typically frugivorous birds, are, when in captivity to man, easily taught first to eat, and afterward to relish flesh. But these instances prove nothing, except that under unnatural conditions animals' natural appetites may be artificially modified. The same thing is seen in the case of the drunkard. It is not natural, but quite the contrary, for a man to experience a craving desire for alcohol (which substance is exactly as much a poison as is prussic acid); nevertheless, we all know that thousands of human beings daily *do* experience this craving; and (which is worse) satisfy it also.

THE PHYSIOLOGICAL ARGUMENT.

It is by the senses of sight, smell and taste that man and other animals are chiefly directed to their food. With animals, their instincts depend in a large measure on these senses. Hence, when the tiger dines on a sheep, his senses of sight, smell and taste are all gratified by the raw flesh and blood which the banquet affords him. "'T is not a basket of hay, but a basket of flesh that will make a lion roar," says the proverb. On the other hand, the eyes, nose and palate of the ox or horse are delighted neither with flesh nor blood, but with green grass, pleasant herbs, and nutritious grains; these to their sight are "fairer than a white egg in a green meadow." Some animals, including insects, due to their particular instincts, prefer what to other animals would be nauseous and disgusting, as decayed fish, putrid meat, and even excrementitious substances. To these creatures the sight, smell and taste of their peculiar food is delightful; and all their organs are adapted anatomically and physiologically to exactly this kind of food, and no other. Glancing at the physiology of this question, let us first look at the salivary glands. Almost all animals possess these. Now, in animals whose food requires long chewing, as in ruminants, these glands are both numerous and large. But, on the other hand, in those who bolt their food, or chew it but little, as the carnivora, the salivary glands are very small, and the saliva secreted is but little in quantity. Now, in man the salivary glands are not so large as they are in the herbivora, nor so small as in the carnivora. But it has been said by those who have specially investigated the matter, that they are found considerably larger in persons who have long lived on vegetal food. And this is certainly a most suggestive circumstance. The fact also that in man the secretion from the salivary glands is, in proportion to his weight, quite copious, indicates that he, both morphologically and physiologically considered, is much nearer to the vegetarian than to the flesh-eating animals.

The *stomach*, taken alone, is not sufficient to indicate the true dietetic character of an animal; but must be considered in connection with the remainder of the alimentary canal, and especially the colon and cœcum. In the herbivora the stomach is large and complicated, while in the carnivora it is smaller and simpler. But there occur

notable exceptions to this rule; in the horse, for instance; but, in this animal the colon and cœcum make up in dimensions for the insufficiency of the stomach. In man this organ occupies a middle position between the two above-named types of animals. Now, the colon in the carnivora is but little more spacious than the small intestines, but in the herbivora it is very much larger. And it is also much larger in man than in the carnivora. In the latter, also, the cœcum is usually either very small, or absent, while both in herbivorous and frugivorous animals it is very large, and not only that, but seems, in some cases to perform, at least partially, the functions of a stomach. In man the cœcum is large, while the vermiform appendix may be regarded as a rudimentary or extended cœcum. The hedgehog, which has neither colon *nor* cœcum, subsists (contrary to the popular opinion) almost solely on snakes and insects.

We come next to the *liver*. In man this viscus is much less developed than in many of the mammalia,—as the carnivora and rodents. It is said that the inhabitants of arctic and sub-arctic climates have the liver much larger, and its secretions more copious than the inhabitants of warm climates. These races are all flesh-eaters. Man also differs from carnivorous animals, and resembles the herbivorous in the great number of sweat-glands located in the skin.

THE PATHOLOGICAL ARGUMENT.

Without enumerating those which are less obvious, there are three palpable diseases which most surely and directly result from the eating of animal flesh: (1) tapeworm; (2) trichinosis; (3) poisoning (due to the production of ptomaïnes) by old sausages; and four diseases which, at least indirectly, often result from the same cause: (4) gout; (5) apoplexy; (6) dyspepsia, and (7) epilepsy; by which I mean to say that these last-named diseases are aided, abetted and fomented by a gross carneous dietary, especially if this dietary be simultaneously made still more injurious by the addition of alcoholics. Thus we have, without any exaggeration, seven diseases caused, either directly or indirectly, by flesh-eating.

Besides these positive, tangible diseases, it would not be difficult to show that the eating even of good meat, under certain circumstances, tends directly to the production of various morbid conditions.

Prof. H. C. Wood, of Philadelphia, in a recent clinical lecture spoke of the injury which is frequently done to the kidneys by the ingestion of too much meat,—the nitrogenous waste being largely excreted by the kidneys. Fothergill also speaks of this same thing. There can be no question but that in many cases of commencing renal troubles a strict vegetarian diet would prevent—what otherwise must surely come,—a break-down of the kidney tissue.

And what is true of renal troubles is in many cases equally true of hepatic disorders. That great authority on the liver, the late Dr. Murchison, of London, considers gout to be in its essence an hepatic derangement. The liver is the *fons et origo* of podagra, and of the entire gouty state.

Shakspere, referring to the gross and capon-fed Falstaff, describes him as carrying a "liver burning hot"; which, in a certain sense is pathologically true. Falstaff was in the engorged and inflammatory condition wherefrom both gout and apoplexy arise. He was plethoric, fat and bloated, his blood being corrupted and made crass by over-eating of flesh, and over-drinking of sack. He, indeed, thoroughly needed the advice offered him to "purge and live cleanly, like a gentleman." He required active antiphlogistic treatment.

Every physician of experience knows that derangements of the liver are brought about by a too highly nitrogenized diet. Now, a rich flesh diet is of all others the most highly nitrogenized. Ben Jonson, whose "mountain belly" was probably due to this very cause, combined with the too-frequent imbibing of alcoholic potations, seems to have diagnosticated his own disease, and also outlined the proper dietetic treatment of it, in the following couplet:

> "Choose leaner viands, ye whose jovial make
> Too fast the gummy nutriment imbibes."

He who steadily feeds on Strasbourg pies, gamy venison, braxy mutton, "high" quails and snipe, the lipogenous flesh of the turtle (calipash and calipee) will by-and-by have an account to settle with his liver. Drunkenness is a bad thing; but it may be questioned if gluttony is not a worse. At any rate, being a more cold-blooded and deliberate, it seems a less excusable fault.

And, while on the subject of the liver, a word will be appropriate on the eating of the livers of animals by man. Physiology shows that in many ways the liver may appropriately be called the body's *sink*. It is, as it were, a sort of systemic cesspool and filter combined; and, in eating it, a large amount of detritus, wreckage, and nitrogenized waste is of necessity ingested. In plainer words, to dine upon liver is to sit down to a meal of excrement. The liver, indeed, is an organ which the ancient Roman physicians, had they possessed our knowledge of physiology, would probably have dedicated to the goddess Cloacina,—whose office it was to preside over sewers, jakes, and cesspools. It is an organ which, as regards the eating of it, man would do well to leave to the unclean beasts, the scriptural *zim and jim*,—the hyænas and jackals,—for whom it is an appropriate tid-bit.

Again, as Bartholow has pointed out, the eaters of kidneys,—another excretory organ, ingest with each kidney a larger or smaller dose of urea, an excrementitious and highly poisonous substance, as we all know; and, as aforesaid, Bologna sausage and black puddings, being composed of blood, contain a whole museum of morbid poisons, including ptomaïnes (cadaveric alkaloids) done up in handy and compendious packages. Of these four horrible dishes (liver, kidney, sausages and black puddings) it is hard to say which is the worst. They are much of a muchness, and as like as are one's fingers to one's fingers. But they who eat one of them, need scarcely stick at the others; for, as the old proverb tell us, "He that hath swallowed the devil may swallow his horns"; and, "Amongst rotten apples there is but small choice."

The following case, where the patient, the narrator, and the adviser were all physicians, seems appropriate for quotation in this place:

Dr. Cheyne, who was an eminent practitioner and a famous man in his day, relates a remarkable cure of epilepsy in the person of Dr. Taylor, who was for a long time dreadfully afflicted by this lethal disease. He tried many medicines; consulted the most eminent of his medical brethren in London; but, like the woman mentioned in the New Testament, who consulted so many doctors, became the worse rather than any better. At last he was obliged to follow the advice of the great Sydenham (the English Hippocrates) of whose

works he had been a diligent student. He first gave up the use of both fermented and distilled liquors; then, finding his fits become less frequent, and less violent, *he gave up all animal food*, and confined himself entirely to cow's milk. In less than two years he was entirely cured, and for seventeen years enjoyed perfect health.

There is another case, recorded in Sir Thomas Watson's Practice of Physic, which, coming from so high a medical authority, and being so pertinent to the present discussion, I will cite:

"The late Dr. Gregory, of Edinburgh, used always to mention in his lectures the case of Dr. Adam Ferguson, the celebrated historian, as affording one of the strongest illustrations he ever met with of the benefit that may be derived from timely attention to the evidence of those circumstances which tend to produce plethora and apoplexy. It is, perhaps, the most striking of the kind on record. Dr. Ferguson experienced several attacks of temporary blindness some time before he had a stroke of the palsy, and he did not take those hints as readily as he should have done. He observed that while he was delivering a lecture, his class, and the papers before him, would disappear, vanish from his sight, and reappear again in a few seconds. He was a man of full habit; at one time corpulent and very ruddy, and, though by no means intemperate, he lived fully. I say he did not attend to these admonitions, and at length, in the sixtieth year of his age, he suffered a decided shock of paralysis. He recovered, however, and from that period, under the advice of his friend Dr. Black, became a strict *Pythagorean* in his diet, eating nothing but vegetables, and drinking only water and milk. He got rid of every paralytic symptom, became even robust and muscular, and died in full possession of his mental faculties at the advanced age of ninety-three, upwards of thirty years after his first attack."

Sir Walter Scott, who knew Dr. Ferguson, described him as one of the most remarkable men it was possible to look at, and spoke of him as "the most striking example of the stoic philosopher which could be seen in modern days."

Dr. Cheyne himself lived freely, and became so enormously stout that he weighed 444 pounds, and was obliged to have the whole side of his chariot open to receive him. Due to this obese

and lipogenous condition, he became lethargic, short-winded, nervous, and also scorbutic. Himself a most skilful physician, he resorted to medicines in vain. And how was he cured, is it asked? The answer is simple: *he became a vegetarian,* and by so becoming reduced his weight from 444 to 140 pounds!

These cases, inasmuch as they speak for themselves, require no comment.

"Animal substances," says Abernethy, "are changed into a putrid, abominable and acrid stimulus." Sir Edward Berry prevailed on a man (by way of experiment) to live on partridges, without vegetal matter of any kind. But after eight days the man was compelled to desist in consequence of the appearance of strong symptoms of incipient putrefaction, thus apparently confirming the truth of Abernethy's dictum.

That the liver as well as the kidneys is injured by an excessive flesh diet is as certain as that there is sand in the desert of Sahara. Dr. Copland (*Med. Dict.*) says that "eating largely or frequently, especially of animal, rich, and highly-seasoned food, and stimulating the appetite by alcoholics, are especially productive of hepatic disorders."

"Animal food," says Sir John Sinclair, "is certainly more dangerous, and in some respects more wasting, than vegetable."

Dr. Craigie (*Elem. of Prac. Phys.*) says: "Diet consisting of bread and milk, or rice and milk, or the flour of farinaceous seeds and milk, is quite adequate to prevent the formation of the gouty diathesis, and to extinguish that diathesis if already formed.

But confirmed flesh-eaters are, as a rule, as hard to convert as drunkards, and, probably, many of them are so joined (Ephraim-like) to their idols that they would almost agree with the cadger's appetizing proverb, which avers that *a louse is better than no meat!* Nor is this vulgar proverb based by any means on the impossible, for more than one reliable African traveler has informed us that there are tribes of natives in the Dark Continent who habitually feed on their own body vermin. And as they esteem this sort of animal food not only nutritious, but luxurious, would most heartily endorse the dictum of the civilized and peripatetic cadger.

I am aware that this is not a savory subject; but we are at present dealing not with sentiments but with facts.

"I am firmly persuaded," says the great Cullen, "that any man who in early life will enter upon the constant practice of bodily labor, and of *abstinence from animal food*, will be preserved entirely from gout."

And in regard to rheumatism (which might justly be styled an own cousin of gout) he observes: "The cure requires, in the first place, an antiphlogistic regimen, and particularly *a total abstinence from animal food*, and from all fermented and spirituous liquors."

It is an historical fact (and is referred to in the medical writings of Dr. Cheyne) that the Prince of Condé, after having long suffered most cruelly from gout, was advised by his physicians for the relief of his pain to enter upon *a vegetal diet*, and a total abstinence from fish, flesh and wine. In a short time his pains were relieved and his gout cured.

Dr. Austin Flint and Dr. Murchison both recommend a reduction in amount of, or an abstinence from, flesh in hepatic congestions and in gout; and so do other authorities: all of which serves to confirm the truth of the old saw which avers that *diet cures more than the lancet.*

The poet Shelley, although not a practising physician, was nevertheless enough of a doctor to know what was good for himself; and, in some cases, as says an old poet,

—"That's as high
As metaphysic wit can fly;"

and was a vegetarian on principle. "There is," says he, "no disease, bodily or mental, which the adoption of vegetable diet and pure water has not infallibly mitigated whenever the experiment has been fairly tried."

[TO BE CONTINUED.]

La France Medicale says that Hayem has found that the green color of the discharges from the bowels of infants suffering with entero-colitis, is caused by a microbe which secretes this green coloring material. The disease is epidemic and contagious. The best manner of treating it is to give the child a dessertspoonful of a two per cent. solution of lactic acid after each time of nursing.—*Phila. Med. Times.*

Squires on Mercury with Chalk in the Treatment of Tapeworm.—The writer has sometimes found mercury with chalk a most effective tæniacide, and cites the following case in illustration: "G. W., aged 31, a blacksmith by trade, had complained of an indescribable feeling in his stomach, bowels, and all through him, as he termed it, for three or four years. There was a wild look in his eyes, and a peculiar appearance of the skin, which attracted people's attention so they would ask what ailed him. His appetite was fastidious; at times he would eat voraciously, then again eat nothing. He became greatly emaciated, and vomiting grew so incessant that he was unable to retain any food. The vomiting had continued about six weeks when I first saw him. He had been treated by several physicians, but said he was getting worse instead of better. I gave him three powders of hydrargyrum cum creta, with directions to take one, morning, night, and morning, with a dose of castor oil after the last powder. He came back in three days surprised, smiling and happy, saying he had passed a tapeworm thirty feet long. He was no longer troubled with vomiting, ate heartily, improved rapidly, and has felt like a new man ever since the worm was expelled.—*N. Y. Med. Record, Oct. 29, 1887.*

Dietary in Bright's Disease.—Dr. J. Milner Fothergill suggests the following articles of diet for patients suffering from Bright's disease. *Breakfast*—Oatmeal or hominy porridge, hominy fritters, followed by a little fish with plenty of butter to it; or a slice of fat bacon or pork. Fat, fish and farinaceous matters. Hominy and fat pork for the less affluent. *Lunch or Supper*—Mashed potatoes well buttered. Other vegetables well buttered. A milk pudding made without an egg. Biscuits of various kinds and butter, with a nip of rich cheese. *Dinner*—Soup containing plenty of vegetable matter, broken biscuit or sago or vermacelli. Cream, in lieu of so much strong stock, should lurk in the soup tureen; especially in white soup. This should be followed by fish in some form; a course of vegetables, as stewed celery, chopped carrots, a boiled onion, leeks, nicely prepared potatoes, as "browned potatoes" a la Marion Harland, asparagus, or "scalloped tomatoes" and corn or "boiled corn." Then should follow apple-bread pudding, bread and raisin pudding, and, if the digestion can be trusted, roly-poly pudding, sweet pudding and fruit pies. Stewed fruits with creeled rice, rice milk, or other milk puddings, is good, or better still, cream. Then comes the biscuit, or crackers and butter. Dessert, with its many fruits, should never be omitted.

The Medical Press

OF WESTERN NEW YORK.

Published by THE MEDICAL PRESS ASSOCIATION of Western New York.

EDITED BY

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Subscription price: $2.00 per Annum.

All business communications should be addressed to DR. JULIUS POHLMAN, Business Manager, Buffalo Library Building; all others to the Editor, 510 Delaware Avenue.

S. Cecil Stanton, LONDON AGENT, 17 Southampton Row, London, W. C.

BUFFALO, N. Y., APRIL, 1888.

HEART AND BLOOD VESSELS IN THE YOUNG.

In the March issue of the *Brooklyn Medical Journal* is published a very interesting paper on this subject by Dr. A. Jacobi. He says that in proportion to its entire weight the young infant has less blood than the adult. This blood contains less fibrin, less salts, less hæmoglobulin (except in the newly-born), less soluble albumen, less specific gravity and *more* white blood corpuscles than the blood in more advanced age. The beats of the heart, whose function begins in the third week, are very irregular at first, soon becoming more regular, but remaining very frequent until birth. Mayor, a surgeon of Geneva, in 1822 first utilized the heart beats in determining whether the fœtus were alive or not, a matter which before that time could not be made out. Later Frankenhäuser first tried to predict the sex of the fœtus by the number of heart beats per minute. This Dr. Jacobi believes can really be done with some accuracy, providing it is done before labor begins, and at a time when the pulse is not affected by causes due to change in fœtus or mother.

The weight of the heart, in proportion to that of the body, changes very little in the several ages. The yearly increase of the heart's weight is greatest during the period of most intense growth, *i. e.* in the first few years; is something less during the fourth and fifth years, and again greater about the period of puberty. After this the yearly increase is smaller but continues

until senility. Provided atheromatous changes do not produce hypertrophy, the absolute weight does not decrease until after the seventieth or eightieth year. The proportionate weight of the heart of the embryo, however, is very great. The increase is mainly noticeable in the earlier months, beginning with the cessation of circulation in the allantois, and also later when the permanent organs begin to claim nutrition and circulation. Thus the weight of the heart compared with the body is greatest at birth. The increase is mainly in the ventricles. For some time after the second month of extra-uterine life up to the second year the auricles are equal; after that time the right outranks the left, so that at puberty it is 5.5 per cent. larger by weight. Immediately after birth the relation of the right and left ventricles to each other becomes greatly altered because of the changed circulation, and involution of the ductus arteriosus after the first month. The relation becomes permanent when the child begins to walk. From that time on, without regard to sex, the right ventricle has half the weight of the left. During fœtal life the right heart outweighs the left.

The area of cardiac dullness is proportionately larger in children than adults, and exactly the reverse of what is found in old age. This is most marked about the sterum. Along its right margin dullness is much more marked than in adults. It can be changed by laying the child on its side. Conformation of chest walls and disease, of course, may alter the area of dullness.

The histological form of the vessels of the cord differs materially from all others. Both in and outside the abdominal cavity the umbilical arteries are very thick and strong, especially about the navel. They are more compact and of a yellowish color in the abdomen, softer and paler outside. Their muscular layers are mostly circular, with some longitudinal fibers externally. It is thickest just inside the umbilicus. In the cord the muscular coat of the arteries is very massive between the adventitia and endothelia. There is no elastic membrane and no intima. Some elastic tissue is found near the umbilicus. The intima is not developed until they reach the iliacs. This heavy muscular coat explains why there are so few hæmorrhages in cases where the cord is not tied. Sometimes there are peculiar prominences on the vessels and dilatations of the lumen.

These are due to differences of the thickness of the walls, and not to contractions of the muscular fibers. Some pecular anomalies of the vessels have been described, such as unequal development, and one case in which one of the arteries ended behind the bladder and did not communicate with the iliac, while the other with the common iliac was much dilated.

Unlike the veins in other parts, the umbilical vein has large and strong muscular walls. It also has no intima. None of the three vessels have branches, and in their walls are no nerves and no vasa vasorum, save about the navel, where vessels from the abdominal walls form the circulus arteriosus umbilicalis.

The blood pressure in young infants is low. E. Hoffman found that it is only 90 mm. in the newly born dog and can only be raised to 160 mm. by suffocation. In grown dogs 160 to 180 mm. is the ordinary pressure. This is another reason why the cord will often not bleed when cut, excepting where arterial pressure is increased by asphyxia, etc.

R. Thoma has found that the post-fœtal growth of the arteries is relatively smallest in the carotids, and largest in the femorals and renals; the difference corresponding with the difference in growth of the parts supplied. The renals even grow more rapidly than the kidney itself, and it has been found by direct experiment that the permeability of the capilaries of the kidney is greater in adults than in infants, rendering them peculiarly liable to renal diseases.

In certain constitutional disorders the proportion between heart and blood vessels is much changed; *e. g.*, in rachitis the heart is of average size, but the arteries are abnormally large. This condition lowers blood pressure and explains the murmur, discovered by Fisher of Boston, over open fontanelles in rachitical babies. The large liver and small lungs in these children also helps account for the low pressure. Ossification, like other growth thereby, becomes defective and irregular, and is followed by deformities. In so-called scrofula the heart is small, the supply of blood to the different parts not sufficient, and ill development follows. The lymphatic system, which is well developed in infancy, is overloaded under such circumstances and participates in the general tendency to retrograde changes.

All the large arteries grow rapidly until the twentieth year, then slower; but do not cease increasing until old age. Even the veins change considerably. Hypertrophy of the heart increases the size of the arteries—aortic or mitral incompetency lessen it, while undersized arteries produce hypertrophy of the heart. Bamberger says that congenitally small vessels do not affect the size of the body so much as they are productive of chlorosis with or without hæmorrhages. Virchow found no constant relation between the size of vessels, condition of body, and presence or absence of hæmorrhages, but that chlorosis, with insufficient development of the sexual organs, always depends on congenital or acquired smallness of the arteries. This condition of affairs is also productive of most obstinate anæmia, and which may continue through a lifetime.

In the young the heart and lungs are taxed more than in the adult, and the blood supply which must maintain the tissues is also required to supply food for a very rapid new growth. The amount of blood is subject to very many changes, and very slight mishaps may reduce it so that the equilibrium between capital and labor, as it were, is disturbed. Anæmia and emaciation are then the natural consequences, which again have their deleterious effects on the vessels themselves. Hæmorrhages in the young are a fruitful cause of persistant anæmia, and its results—sleeplessness, attacks of syncope and hysteria. Murmurs, though rare in infancy, are almost always due to lessened blood-pressure, and can be heard over the fontanelles and carotids. Murmurs are seldom heard over the heart; when so, it is safer to attribute them to organic disease. Acquired endocarditis and acute rheumatism are anything but rare in children.

Atheromatous degeneration in the young is exceptional, but congenital thinness of blood-vessels leading to hæmorrhages is not rare. In the smaller arteries the elastic membrane is very thin, and especially where the branches are given off, and here it is that spontaneous hæmorrhages take place and congenital aneurisms are formed.

Within an hour after birth the pulse becomes more regular and its frequency lessened. From the first to the sixth months it is 120 during sleep, and 130 to 135 while awake. It is 100 at six years, 88 at thirteen, and 72 in the adult. Tall children exhibit less frequency than short ones; girls, after the fifth year, and more so

about puberty, more than boys. Sometimes the pulse cannot be felt in the radials. The femoral and carotid are more accessible and the basilar through the fontanelle. The expansion of the artery is very much more perceptible than the contraction, and the rythm is by no means stationary. The pulse is apt to be irregular at all times, and responds very quickly to the slightest disturbances. Herophilus is correct when he describes the pulse of the newly-born as pyrrhic ᴜᴜ, two short beats; the child as trochaic —ᴜ, one, long and one short beat; the adult as spondaic — —, two long beats and the pulse of old age as iambic ᴜ—, one short and one long beat. After the fourth or fifth year the pulse is regular, rythmical and of equal strength, and the normal relation of heart-beats to respiration is 37 or 38 to 10. When this relation is disturbed, and rate, strength and rythm are irregular, there is reason for being on the lookout for physical and intellectual dangers ahead, especially when these occur in connection with other symptoms.

DIET IN LITHIASIS.

A prominent physiologist has said that nine-tenths of all diseases to which the human animal is subject arise from indiscretions in diet.

That lithiasis (lithæmia, gouty diathesis, or whatever name it may be called by) is one of those diseases due to abuse of the digestive apparatus, either by the individual or by his ancestors, is, I think, universally admitted. As to the pathogeny of lithiasis, all observers agree that it is due to an insufficient oxidation of the albuminoid substances in the organism, prepared for final excretion; that instead of urea, the final oxidation product, there is formed uric or lithic acid, a lower oxidation product of the albuminoids. That this formation of urea or uric acid, as the case may be, takes place in the liver is a commonly accepted proposition, though not positively proven, nor *universally* accepted even as a theory. But to go into a discussion of this point would lead us too far from the subject under consideration.

As regards the diet, views are held by different observers which seem to be diametrically opposed to each other. The one class prohibits albuminous foods, or reduces the amount to a minimum, and

advises a diet of starches, sugars and fats; the other class prohibits the use of starches, sugars and fats, and advises a diet of albuminous foods. Both report good results. It ought to be added that both use alkaline remedies in the way of medicines.

As an example of the teachings of the first class we quote the following from Fothergill's Manual of Dietetics: "The old school, who forbade sugar, are giving way to younger men who follow the chemico-physical changes in the nitrogenized elements of our food. * * * * Then, again, some persons object to fat for gouty people. On what their objection is based is unknown to me. For my own part my experience, personal and other, runs on all fours with Ebstein's directions to eat fat. * * * * When we come to the practical details of a gouty person's dietary, we must keep the cardinal matter of the avoidance of albuminoids well in view. * * * * To a gouty man of perfect digestion a lobster salad is a typical food. * * * * But for ordinary gouty persons potatoes in all forms, carrots, turnips, parsnips, beets, * * * * beans, peas, baricots, green corn and sugar corn," etc., etc.

"Fruits of all and every kind, raw or cooked, are suitable, whatever views may once have been held about sugar.

"As to milk itself, it should be taken in moderation unless it is taken as the sole food—a regimen which agrees with some individuals."

Dr. Bartholow, in the article on Lithæmia in Pepper's System of Medicine, says: "Attention to diet is of first importance. As uric acid is an intermediate product in the metamorphosis of albumen, it might be supposed that to diminish the quantity of this constituent of the food would be sufficient. In some cases this suffices, but usually attention must be given to the peculiarities of digestion characteristic of each patient. More frequently, trouble arises from indulgence in starchy and saccharine constituents of the diet; in some a very considerable gastro-duodenal catarrh exists, and the mucus, acting as a ferment, sets up an acetic fermentation in the starchy and saccharine substances, with the necessary production of much carbonic acid gas.

"If the fats disagree the butyric fermentation also takes place, and very irritating fat acids result. * * * * It follows, then, that

in cases of lithæmia the saccharine, starchy and fatty constituents of an ordinary diet should be omitted from the food of such subjects. * * * * On the other hand, there may be those who do better on a diet of vegetables and fruit, excluding meat. In such we may suppose the fault lies in the stomach digestion, where the albuminoids are converted into peptones, the intestinal digestion being active and normal."

By these quotations we see that the two classes of observers are opposed to each other only as to which class of cases is the rule and which the exception. Those who shall live on starches, sugars and fats, and avoid albuminoids, Fothergill makes the rule, while Bartholow makes them the exception.

Granting the pathogeny which both observers put forward, the diet advocated by Fothergill seems more rational. But we must remember that the body has need of albuminoid material to supply the loss occasioned to all the tissues in the normal metamorphoses that are constantly taking place in all parts of the body. Moreover, albuminoid material, as it exists in the animal flesh, is more easy of digestion in the human stomach than the albuminoid material as it exists in the vegetable world; therefore a certain amount of meat is necessary. On the other hand, we must have the non-nitrogenous foods—the sugars, starches and fats—as the force-producing element in the body. A mixed diet is necessary to the maintenance of life. Moreover, in those cases that will submit themselves to a rigid *milk diet*, excellent results are obtained. What is a milk diet? It is a *mixed* diet, containing albuminoids, sugar, fat, a few inorganic salts, and *a large quantity of water*.

What conclusions, then, are we justified in drawing as to the proper diet for a lithæmic individual?

It seems to me that it is not so much the *quality* as the *quantity* of the food eaten that does the harm. Either the individual himself is, or has been, a glutton, or some of his ancestors have been gluttons, and have handed down to him an imperfect digestive apparatus. Let the lithæmic individual—or one whose ancestors have been lithæmic—eat a mixed diet, but eat *sparingly* of *all* things, let him get up from the table slightly hungry rather than sated, and above all let him drink plenty of *water* and avoid all other beverages, with

the exception, perhaps, of an occasional glass of dry wine or whiskey or brandy. Let him take plenty of out-door exercise to increase the oxidizing power of his organism in order to complete the oxidation of the albuminoids and form urea instead of uric acid. If he follows these simple rules he need have little fear of attacks of gout in any of its forms. R.

* * *

THE Roumanian language is spoken by about eight million of people, and is the vulgar tongue of Bulgaria, Servia, Transylvania, Bessarabia and Bukorina; nevertheless, it has practically no literature. It is, philologically, a bastard Latin, and a dialect of it is spoken in Macedon, Thessaly and Albania. An enterprising French firm has begun the publication of *The Roumanian Archives of Medicine and Surgery*, which it is anticipated will after a little be published in the vernacular.

Book Reviews.

MANUAL OF MEDICAL AND CLINICAL DIAGNOSIS. By Otto Seifert of Würzberg and Dr. Friedrich Müller of Berlin. Translated by W. B. Canfield. Pp. 172, 12mo. New York: G. P. Putnam's Sons. 1888.

The translation of this little book into English has placed before the American practitioner and student a clinical treatise which is in daily use among the students of the German universities. Within its pages is found a clear and practical discussion of all of the newer methods of diagnosis of urinary analysis, and a most useful chapter upon the nervous system and the significance of the various reflexes. Passing over the portion relating to the blood, which contains cuts illustrating the changes in the blood corpuscle in health and disease as well as methods of counting the blood corpuscles, we find in the next chapter temperature charts of all of the eruptive fevers, pneumonia, erysipelas and typhoid fever. We note as extremely interesting the pages devoted to the sputum, the significance of the kinds of expectoration, in which mucus, pus, serum or blood are present. The subject is further pursued, and the reader finds descriptions of the morphological constituents of the sputum, viz., epithelium, bronchial casts, pulmonary tissue, and the Charcot-Leyden asthma crystals. Many useful hints are found in the chapters upon the abdominal organs. The examination of the contents of the stomach

is at best a tedious and disappointing task. A very simple test is here given: By simply adding a few drops of a dilute solution of methyl violet to the filtered gastric juice, a change in color will at once determine the presence or absence of hydrochloric acid. This is a most valuable point in the diagnosis of carcinoma ventriculi; for, as the authors most truthfully assert, if violet change to reddish brown acid is present in appreciable quantity, and therefore cancer of the stomach may in all probability be excluded from the diagnosis. Several new tests are given for albumen with acetic acid and ferro-cyanide of potash, useful in case of chronic interstitial nephritis, where the quantity of albumen may be so small as to include the heat and nitric acid test. Also, the biuret test, with potassium hydrate and sulphate of copper, which enables one to isolate peptone and hemialbumenose. Von Jaksh holds that the presence of peptone in the urine always indicates a suppurative process, and its recognition is important in the differential diagnosis between purulent cerebro-spinal meningitis and tubercular meningitis. Tests are also found for various medicines excreted through the urine, salicylic and antipyrine. The work concludes by rehearsing important nervous symptoms, tests for disturbance of sensation or motion, lesions producing anæsthesia, etc. Under the heading of electrical reactions the authors describe the degeneration reaction of Erb and its employment in the diagnosis of neuritis, myeletis, infantile paralysis. To this is added an enumeration of the superficial and tendon reflexes and their significance, and the changes in the pupil in tabes dorsalis and the paralysis of the insane. Finally, the most important clinical points in the anatomy of the nervous system are given, including localization of cerebral and spinal lesions. In the opinion of the reviewer the average clinical hand-book is to be condemned as superficial and incomplete, but Seifert and Müller have discussed each subject with true German throughness. The book is to be recommended to the medical student as a most thorough and useful accessory to his clinical studies. It is, nevertheless, most valuable to the busy practitioner, as it places concisely before him the newest and most scientific methods of diagnosis of the great continental universities. The translation is very acceptably made. I. M. S.

ATLAS OF VENEREAL AND SKIN DISEASES. By Prince A. Morrow, A. M., M. D., Clinical Professor of Venereal Diseases in the University of the City of New York, etc. Parts I., II. and III. New York: Wm. Wood & Co. Buffalo: J. H. Matteson.

It has been estimated by a most competent authority that fully one-eighth of the sum total of human suffering is caused by venereal diseases and their sequelæ. When the vast number and variety of cutaneous affections of non-venereal origin are considered in addition, the great clinical importance of the class of diseases embraced within this atlas may be appreciated. As these diseases occur to a greater or less extent in the practice of every physician, it is important that he should be familiar with their varied manifestations. This atlas is not intended to be the sole work of one author, but is to contain plates selected from the large and expensive foreign atlases of Prof. Kaposi and Neumann, the former's being devoted to venereal, the latter's to non-venereal diseases; it will also contain selections from the collections of originals in the service of men like Jonathan Hutchinson, Fournier, Ricord, Keyes, Otis and Hyde. The editor, Dr. Morrow, will not only write the accompanying treatise, but will contribute many illustrations from his own collection. He has sought to combine the pictorial representations of the diseases which commonly occur and are really important, with a practical exposition of their distinctive clinical features. With this object in view he has endeavored to select from various sources the most characteristic and typical examples of these diseases which have ever been delineated. Illustrations which are merely striking from their unusual and exaggerated development have been omitted. What may be styled the "common run" of cases—those ordinarily met with in practice—have been selected; and included in it, not only as a valuable independent feature, but also as a practical means of differential diagnosis, are the eruptive fevers, as rubeola, scarlatina, erysipelas, variola, varicella vaccinia, etc., *not found in any other work of the kind.* The atlas will be published in fifteen imperial folio parts, containing seventy-five superb colored plates, containing several hundred figures, many life size, together with descriptive text for each plate, and from sixteeen to twenty folio pages of a practical treatise upon venereal and skin diseases. It will be sold by subscription only, at the very moderate price of $2.00 per part. Fascicali

I., II. and III. are now before us. The first is devoted to the chancroid, of which numerous illustrations are shown; the second and third give a number of cuts of simple and eratic chancres and vaccination syphilis, with the early syphilides. The accompanying text is extremely readable and happy, while the character of the illustrations is up to the standard.

A Practical Treatise on Diseases of the Skin. John V. Shoemaker, A. M., M. D., Professor of Skin Diseases in the Medico-Chirurgical College and Hospital of Philadelphia, etc. Pp. 633. New York: D. Appleton & Co. 1888.

The array of distinctively American text-books upon dermatology, which have appeared during the last decade, is a striking evidence of the zeal, industry and growing interest manifested at home in this branch of medicine. The classical work of Duhring, the standard editions of Piffard, Robinson and Hyde, and the excellent atlases of Fox, Duhring, and the forthcoming treatises of Taylor and Morrow, are sufficient proofs of the fact referred to. The present work of Dr. Shoemaker is likely to attract particular attention; not only from the vast importance of the subject, but chiefly from the recognized originality displayed in the department of therapeutics. Dr. Shoemaker begins his work with a section on anatomy and physiology of the skin, which embodies in a condensed and abbreviated form all our present knowledge on these subjects. The chapters devoted to symptomatology, diagnosis, pathology and aetiology are also briefly and justly considered, while the topic of treatment receives greater attention. It is especially as regards the last, as well as in the treatment of individual cases, that the work appears strong. In the preparation of this section he likewise condensed his material accurately without sacrificing clearness. The oleates, with which Prof. Shoemaker's name is so closely associated, he having been chiefly instrumental in their introduction, are enumerated in full. Furthermore, the more recently introduced substances, such as lanoline, naphthol, ichthyol, resorcin, etc., for the treatment of cutaneous disorders, have not been omitted from his *armamentarium therapeuticum.* The classification followed is the anatomo-pathological one of Prof. Hebra slightly modified. The various diseases of the skin are next described in a systematic manner, being complete and exhaustive in

their presentation, including numerous suggestions of the authors, many of which are notably new and some even peculiar. It concludes with a complete and well-selected formulary, embracing many new drugs and combinations which recent experience has demonstrated to be of great efficacy. Taking it all in all, the book has been brought fully up to the latest advances made in dermatological therapeutics, quite complete in its scope, and with the exception of the colored plates contained it is thoroughly practical in character, and will represent an authority on this subject which, we believe, will be duly appreciated by the profession. W.

DISEASES OF THE HEART. By Alonzo Clark, M. D., LL. D., Emeritus Professor of the Principles and Practice of Medicine, College of Physician and Surgeons, New York City, etc. New York: E. B. Treat. 1887.

This excellent volume contains the carefully arranged and revised lectures delivered by the author upon "Diseases of the Heart" at the College of Physicians and Surgeons. Many extracts from recent literature have been added to the text, and opinions are subjected to the thoughtful inquiry which new truths and investigation demand. The book cannot be accepted as a thorough or complete text-book; nor was it intended to fill such a place. We are pleased to find the records of a great experience presented in lucid and charming style with no labored effort at compilation to support doubtful theories or statements. The author speaks as an authority, and bases opinion upon extended operation. His personality is apparent in every sentence to give the statement power, and it is refreshing to notice the direct admission of uncertainty or ignorance where intricate questions are involved. The lectures upon "Fatty Degeneration" and "Myocarditis" are particularly interesting for this reason. The views which the teacher has inculcated are well known, and they are so intimately associated with reported cases to afford correct exposition that consideration in detail would fill much space and destroy a relation which should be undisturbed. We know of no work which offers the student a clearer explanation of a difficult subject in so pleasing a way. In the parts devoted to symtomatology and the description of the manifestations of disease the author's great facility of expression produces a delineation most trustworthy and concise. The practitioner will find it

profitable to become acquainted with the reports of many rare cases carefully collected, and welcome an opportunity to read lectures of rare merit which fortunately have been preserved. We recommend the work most heartily as a safe and valuable contribution, and wish that one so highly qualified to teach had written more. J. H. P.

On a New Treatment of Chronic Metritis, and especially of Endometritis, with Intra-Uterine Chemical Galvano-Cauterizations. By Dr. Georges Apostoli. Translated by A. L. Smith, B. A., M. D. Detroit: Geo. S. Davis. 1888.

This little work of about one hundred pages gives in detail Apostoli's method of applying the galvanic current for the cure of that most intractable complaint, chronic metritis. Anything which offers a hope of success in the treatment of what has generally been admitted to be an incurable disease must be at least carefully considered, and, if not unreasonable, faithfully tried. Apostoli gives us here a very full and complete description of precisely how it is to be done. All the details are most minutely described, and anyone ought to be able to take the book and carry out the treatment exactly as the author directs. His idea is simply to destroy the lining membrane of the uterus by galvano-chemical action, and then set up a new trophic action in the uterus, which will go on to a cure. The expensive instruments necessary, the great care and trouble which one must give in order to insure success, will, we think, prevent the method from ever becoming generally popular. In the hands of specialists it will doubtless be tried, and we sincerely trust prove the boon which its author asserts. We can only say we have our doubts.

Obstetric Synopsis. By J. S. Stewart, M. D. Pp. 202. Philadelphia: F. A. Davis. 1888. .

This little volume, the first of The Physicians' and Students' Ready Reference Series, presents a very acceptable summary of all that the good obstetrician must constantly bear in mind. The resumé of development, of physiology, of the signs and disorders of pregnancy, are all good; and the descriptions of labor and of the various phases of the puerperal state quite satisfactory. A concluding chapter on obstetric operations is added. Altogether the manual seems to be one of the safest which could possibly be put into the student's hands, either as an actual guide or as a quiz compend.

A Practical Treatise on the Medical and Surgical Uses of Electricity. By Drs. Geo. M. Beard and A. D. Rockwell. Sixth Edition; revised by A. D. Rockwell, M. D. Pp. 758, with 200 illustrations. New York: William Wood & Co. 1888. Buffalo: J. H. Matteson.

Perhaps no feature of this well-known treatise is more conspicuous than this, that the real scientific basis for the use of electricity in medicine and surgery is found in electro-physics. Until the fundamental part, at least, of this science is understood, no one can be a good electro-therapeutist. There is, therefore, ample justification for the devotion of an eighth part of the work to this topic. The fifth edition was a great advance over the fourth. The sixth, the present, has been changed especially by the introduction of much pertaining to gynæcological electro-therapeutics, including the work that Apostoli has done in this domain. It occurs to us to make only two criticisms, or perhaps three. First, that the subject of statistic electricity deserves more consideration than the authors give it, in spite of their statement that it has a very limited range of applicability. Second, that the glossary of technical terms needs amplification, there being no definition of such terms as *ohm*, *ampere*, etc. Lastly, that the reader would gather from the work that the treatment of tumors, benign or malignant, by electrolysis is much more simple and, especially, satisfactory, than it proves to be. But the work as a whole is the best of its kind in any language, and this last edition has only again put it abreast of the year of publication, so that it is to-day *facile princeps*.

Health Lessons: A Primary Book. By Jerome Walker, M. D. Pp. 194. D. Appleton & Co., New York. 1887.

This book is not aimed at adults, but at children, and is designed to teach them the fundamental principles of hygiene and school physiology, and its pictorial way of appealing to their imaginative powers is therefore not only pardonable but probably effective as well as attractive. An excellent feature of the book is that by which not too large a draft is made upon the teachers, few of whom know anything of the matters it is intended to teach. The illustrations are certainly original, calculated to please the juvenile eye, and yet convey each a lesson, more than can be said of many popular health and science tracts. Dr. Walker has, in our estimation, succeeded well in doing what he attempted to do.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA. Third Series. Pp. 600. Vol. IX. Philadelphia: P. Blakiston, Son & Co. 1887.

A little over a year ago the College of Physicians, of all American medical institutions of its kind the most creditable to the profession, and on whose list of members appear the names of the most eminent men in the profession all over the world, celebrated its centennial anniversary. This volume of over 600 pages contains besides a complete history of the College, descriptions of its museum exhibitions and library of nearly 40,000 volumes, a full account of the celebration with the commemorative addresses, down to the toasts and menu card of the banquet. It also contains seventeen interesting papers read before the College from July, 1886, to July, 1887. Among the writers are such men as Mitchell, Osler, Musser, Allis, Allen, Meigs, etc. But the bulk of the volume is made up of historical matter, and as such is of most and peculiar interest to the members of the College.

PHOTOGRAPHIC ILLUSTRATIONS OF SKIN DISEASES. By Geo. H. Fox, M. A., M. D. Parts III. and IV. New York: E. B. Treat.

The third and fourth parts of this atlas are mainly devoted to eczema in its protean forms; several plates of similar appearing but radically different lesions being introduced for purposes of comparison and differential diagnosis. Such are sycosis and tricophytosis barbæ, syphiloderma squamosum and dermatitis exfoliativa. A plate of psoriasis guttata is singularly illustrative and exact. The accompanying text is, as usual, concise and valuable.

BOOKS RECEIVED.

From G. P. Putnam's Sons, New York:
Manual of Clinical Diagnosis: SEIFERT and MÜLLER.

From Lea Bros. & Co., Philadelphia:
Diseases of the Skin: J. NEVINS HYDE.

NOTICE.

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The Medical Press
of Western New York.

Vol. III. JUNE, 1888. No. 6.

VEGETARIANISM: FROM A MEDICAL STANDPOINT.

By F. Bradnack, M. D.,
Buffalo, N. Y.

[conclusion.]

THE PSYCHOLOGICAL ARGUMENT.

We have been so long accustomed to flesh-eating that the mere calling the habit in question will doubtless by many be resented as an impertinent meddling with established custom. But these offended ones belong to that class which, when any new way or amendment is proposed, immediately object to it by saying, "The old way was good enough for our grandfathers, therefore it is good enough for us." These people are the enemies of reform. They belong to the perennial Bourbon genus, of whom Napoleon said: "They never forget anything; and they never learn anything." They are like the Chinese, who do everything to-day exactly as they did it three thousand years ago. They are clogs upon the wheels of progress, and are beyond all remedy. It is to them that the old proverb applies, which says: *Put a dog's tail into a straight pipe for a thousand years, and it will still be as crooked as ever.*

Prophets, sages and reformers alike waste their ammunition on this class. "The man," says William Blake, "who never alters his opinion is like standing water, and breeds reptiles of the mind." He who will listen to no argument shuts himself from any possible improvement. He must continue to be ruled by his appetites and passions and may be assigned to the class of moral incurables. Upon such, advice, remonstrance, statistics, facts and arguments all fall in vain, or like water upon a duck's back. They are joined to their idols; and, it is a curious etymological fact that idols and idleness often go together! Waste no powder and shot on *them;* they are standing proofs of the wisdom of the adage which says:

"Convince a man against his will,
He 's of the same opinion still."

Let them alone: *Let Gryll be Gryll, and keep his hoggish mind.* They are deaf adders; they will be converted on Tib's eve, in the Greek Kalends, and *when the frog has hair*,—and not till then.

That a man's diet not only may, but must, affect more or less his psychical and mental states is an assumption that would in this day of science scarcely be disputed by any physiologist or psychologist. Even laymen, as well as physicians, are, and always have been, more or less aware of it. The poet Prior, in the last century, said:

> "The strength of every other member
> Depends upon your belly timber;"

of which couplet it may be safely observed that it contains more truth than poetry, and more scientific veracity than elegance. It embodies a truth which may serve as a sort of text for a lay sermon. Let us glance a moment at the opinions of the wise men of past ages upon this subject; and, in so doing, we shall do well to remember that, though we moderns have more *science* than the Greeks and Romans had, it is very doubtful if we have more *sense*. Hippocrates, Galen and Celsus were as acute *observers* as are the Sydenhams, Hunters and Jenners of our time; and he who disparages or lightly regards the wise of any age does (to put it mildly) an extremely foolish thing. The science and art of medicine is not a mere century plant, but is one which has been steadily growing and increasing ever since it was first planted in the soil of Greece by Hippocrates.

Pythagoras, the sage of Crotona, Zeno the stoic, and Epicurus were all vegetarians on principle. Theophrastus, the disciple not only of Plato, but of Aristotle also (a man to be envied), who died aged 107, says: "Eating much, and feeding upon flesh, makes the mind more dull, and drives it to the extreme of madness."

Solomon saw clearly that two evil things often go hand in hand; and so, by rebuking them both at once, shot, as it were, two birds with one gun loaded with the adage, which says: "Be not amongst wine-bibbers, amongst riotous eaters of flesh."

Diodorus tells us that Diomedes, king of Thrace, fed his mares with the flesh of miserable strangers (truly, a miserable diet!) cut in pieces for the purpose; and that this diet made the animals so fierce that they were obliged to be kept in stalls of brass, and tied up with iron chains."

Isaiah, in the Scriptures, describing a future happy and desirable period, says: "The wolf and the lamb shall feed together; and the lion shall eat straw like the bullock;" implying that until the lion changes his carrion diet, and becomes a vegetarian his fierce and bloody disposition will not be changed.

Porphyry, of Tyre, a disciple of Plotinus, and who lived in the third century, says: "Give me a man who considers seriously whence he came, and whither he must go; and from these considertions, resolves not to be governed by his passions. And let such a man tell me whether a rich animal diet incites less to irregular passions and appetites than a light vegetable diet. It was not from those who lived on vegetables that robbers, murderers, sycophants or tyrants have proceeded, but from *flesh-eaters*."

The poet Hesiod says: "The uncultivated fields afforded the first men their fruits, and supplied their bountiful and unenvied repasts."

Celsus tells us that "the bodies which are filled in the manner of the athletæ, that is, with much animal food, become the most quickly old and diseased."

Homer, in the Odyssey, speaking of the Lotophagi, a nation who fed on lotus fruit, plainly attributes both their hospitality and good nature to their food:

> "A hospitable race;
> Not prone to ill, nor strange to foreign guest,
> They eat, they drink, and nature gives the feast;
> The trees around them all their fruit produce;
> Lotus the name; divine, nectareous juice."

As a good offset to this picture of the benign results of a vegetal diet comes the following from Hesiod, as a picture of the results of flesh-eating:

> "Potent in arms, and dreadful at the spear;
> They live injurious, and devoid of fear;
> On the *crude flesh of beasts* they feed alone,
> Savage their nature, and their hearts of stone."

Having now seen a few of the opinions of the ancients regarding the psychological effects of different diets, let us turn to the moderns.

John Evelyn (in his *Acetaria*) criticising Cardan's opinion in favor of meat, says: "But this his learned antagonist utterly denies: whole nations, flesh-devourers (such as the farthest northern)

becoming heavy, dull, inactive, and much more stupid than the southern; and such as feed much on plants are more acute and subtil, witness the Chaldæans, Assyrians and Egyptians."

Sir John Sinclair says: "Vegetable food has a happy influence on the powers of the mind; and tends to preserve delicacy of feeling and liveliness of imagination, and an acuteness of judgment seldom enjoyed by those who make a free use of animal food."

Lord Byron was a vegetarian, and so was the poet Shelley; and both were so because they believed, firstly, that it was man's natural and proper diet; and, secondly, because they found that their mental processes were conducted with greater ease when they abstained from flesh. In other words, the machinery of their minds worked better, and with less friction, on a vegetal than on an animal diet. And this also has been the opinion of many other brain-workers. I, myself, can add my mite to the general testimony, and firmly believe that any laborer in the noetic field (the realm of *Nous*) will admit that about the worst possible preparation for hard brain-work of any kind,—literary, scientific, artistic,—is a full meal of flesh, washed down with copious potations of fermented or spirituous liquors. Balzac, who knew what hard literary work was, if ever a man did, refrained entirely from both flesh and wine whenever he was engaged in composition. He considered a stomach full of meat to be incompatible with brain-work. And he rightly so considered. They are as incompatible as an acid and an alkali; a hawk and a handsaw; a wolf and a lamb.

"Where animal food," says Sir John Sinclair, "is used in a great proportion, fermented liquors become in a great measure necessary to obviate, in some degree, the septic tendency of such a way of living."

"The Tartars," says this same authority, "who live principally on animal food, possess a degree of ferocity of mind and fierceness of character which form the leading features of all carnivorous animals. On the other hand, a vegetal diet gives to the disposition, as in the Brahmin, a mildness of feeling directly the reverse of the former."

Byron believed that eating flesh excited men to war and bloodshed. His biographer says: "One day as I sat opposite to him,

employed, I suppose, rather earnestly on a beefsteak,—after watching me for a few seconds, he said, in a grave tone of enquiry: 'Moore, don't you find eating beefsteaks makes you ferocious?'"

It is also related that Fuseli, the painter, was in the habit of eating raw meat for the purpose of engendering in his mind horrible and blood-thirsty fancies. And it is recorded of Mrs. Radcliffe, the novelist, that when she was writing that eerie and uncanny book, "The Mysteries of Udolpho," she ate raw meat for the same purpose.

But, in all seriousness, if we consider the tempers and dispositions (the mental states) of carnivorous and herbivorous animals, we shall discover in them very great differences. Compare, for example, a sheep and a tiger, a horse and a leopard, a rabbit and wild cat. "The wolf," says the proverb, "does something during the week which prevents his being at church on Sunday." Old Prior is psychologically right when he says:

> "Was ever Tartar fierce and cruel
> On barley-meal and water-gruel?"

I think it could be proved with but little trouble that butchers are, as a rule, choleric, irascible and cruel. Being constantly present at scenes of slaughter and bloodshed, it is no more than reasonable to expect they should become so. Are not cannibals notoriously of a truculent disposition? The German materialistic proverb declares that *Der Mensch ist was er isst;* and, when we see that carnivorous animals are usually both fierce and cruel, and vegetal feeders are mild and gentle, we are ready to admit at least a partial truth in the proverb. The Scriptural adage instructs us that a man cannot touch pitch without being defiled; and doubtless the declaration would be equally true if the word *blood* was substituted for pitch.

But he who would become a vegetarian, after having been for years a flesh-eater, should not be advised to make the change too suddenly. Let the motto of Erasmus be his motto: *Festina lente!* Let him bring about the alteration by slow degrees; for every beginning is hard, as the thief said when he began by stealing an anvil. But, if the would-be Pythagorean will but persevere steadily, and not allow himself to be frighted by the fatuous fears, Abderian laughter, and croaking, batrachian, nonsensical predictions of

the enemies of Pythagoras, he will, before long, discover that this ancient sage deserved the title of philosopher; and will, when he himself has become a Pythagorean, agree with the proverb which avers that *a bad custom is like a good cake, better broken than kept.*

THE ÆSTHETIC ARGUMENT.

Admitting that the subject of vegetarianism is, *ab ove usque ad mala*, chiefly a scientific question, nevertheless, it is not wholly so; but is one which concerns all men, learned and unlearned, wise and simple. Although the wise man eats to live, and does not live for the especial purpose of eating, yet we know that not only the palate, but also the eye and the nose, have much to do with the selection of human food; whilst physiology teaches us that, other things being equal, food which is sapid and agreeable to the gustatory and olfactory nerves of the eater is more easily digested than food of an opposite nature.

It has been said, and is doubtless true, that in the case of the average man, were he to see slaughtered, cut up, and cooked the meat destined for his stomach, he would probably not be so pleased with his dinner as he might be had he not witnessed those processes.

If any phenomena *much* more disgusting and de-appetizing than gutters of blood, piles of offal (in various stages of corruption), reeking mountains of flesh, various sanguineous, olid, carneous, stercoraceous, putrescent, excrementitious and mephitic odors, together with blood-bedaubed and gore-bespattered butchers can be imagined,—I should *not* like to know what they are!

Yet this is no fancy sketch; but one which may be witnessed any day at almost any surburban shambles. But, as if it were not gross enough to eat meat almost raw, as is the mode, an abominable and inhuman custom or fashion has recently come up (sanctioned, I regret to say, by some medical men) of *drinking blood.* I have been informed by butchers and others that this disgusting practice is by no means uncommon among consumptives. But, aside from the dangers of parasitic infection (which is by no means slight) it does seem as if the intrinsic horribleness of the action would deter most persons from it, especially women.

Hamlet, when greatly agitated on one occasion, remarks: *Now could I drink hot blood!* But he probably remained satisfied with

the potentiality of the act; for, as Shakspere nowhere mentions his having actually imbibed a sanguineous "cocktail," we may conclude that he thought better of it.

It was under the pressure of all sorts of bloody thoughts and deeds that Hamlet gave vent to the above remark, but the modern valetudinarians propose (so to speak), to drink their "hot blood" leisurely *in cold blood.*

Faugh!—to quote the Dane again, the "gorge rises at it." And so, no doubt, would have risen Hamlet's gorge, had he tried it. In the score of disgustingness, blood-drinking certainly does not seem more than one or two steps removed from cannibalism. Doubtless, if the latter were proposed as a dietetic measure for invalids, some doctors would be found to favor it. For history proves that there never was any theory in physic so preposterous or outrageous, but somebody or other could be found both to commend and to recommend it; all of which merely serves to establish the correctness of the French proverb which tells us that *Un sot trouve toujours un plus sot qui l'admire.*

I do not purpose to say much under this sixth head (not but what much might be said), for the reason that I am endeavoring to view the question as nearly as may be from a purely medical standpoint. Nevertheless, the problem is many-sided; and, moreover, whatever in any way really concerns the good of mankind is directly, or indirectly, of interest to the intelligent and progressive physician. For those of an opposite stamp this article is not written.

It has pleased the all-wise Creator of the universe so to form the senses of man, and so to arrange the food products of the vegetal kingdom, that the former are almost invariably pleasurably affected by the latter. Who, for instance, is not pleased by the sight, smell and taste of (say) a basket of ripe red apples, luscious peaches, pears, grapes and plums,—or the olitory smell of a garden? On the other hand, who (unless it be some gorbellied Panguts or cruentous butcher whose natural taste had become changed by long years of flesh-eating) but would be *un*pleasantly affected by the sight and odor (let alone the taste) of a reeking lump of blood-dripping flesh, or a steaming dish of black-pudding?

"How," says Plutarch, "could man bear to see an impotent and defenceless creature slaughtered, skinned, and cut up for food? How could he endure the sight of the convulsed limbs and muscles? How bear the smell arising from the dissection? Whence came it that he was not disgusted and stricken with horror when he came to handle the bleeding flesh, and clear away the clotted blood and humors from the wounds? We should, therefore, rather wonder at those who first indulged themselves in this horrible repast, than at such as have humanely abstained from it."

Here we see how flesh-eating was regarded by one of the most learned and intelligent of the Greek authors. Let us next see how the same matter is regarded by an equally intelligent modern: "I have, sometimes," says Dr. Cheyne, "indulged the conjecture that animal food and *made* or artificial liquors, in the original frame of our nature and design of our creation, were not intended for human creatures. They seem to me neither to have those strong and fit organs for digesting them (at least such as birds and beasts of prey have that live on flesh), nor those cruel and hard hearts, or those diabolical passions, which would easily suffer them to tear and destroy their fellow-creatures; at least not in the first and early ages, before every man had corrupted his way, and God was forced to exterminate the whole race by a universal deluge, and was also obliged to shorten their lives from a thousand years to seventy. I can not find any great difference, on the foot of natural reason and equity only, *between feeding on human flesh, and feeding on brute animal flesh*, except custom and example."

No more, to say the truth, can I. Dr. Cheyne hits, I believe, the right mark where he observes, that in a state of *unperverted nature* man would not, and could not, take pleasure in killing animals, nor in the sight, smell or taste of their mangled bodies. As furnishing a strong presumptive evidence of the correctness of this hypothesis, there is, happily, on record a most remarkable case,—that of the so-called wild boy, Casper Hauser. This individual was fed from childhood until seventeen years of age on coarse bread and water; and he had an instinctive loathing and abhorrence of flesh when it was first offered to him. "The odor of flesh," says his biographer," was to him the most horrible of all smells. When the first morsel

was presented to him, scarcely had it touched his lips before he shuddered; the muscles of his face were seized with convulsive spasms; and with visible horror he spat it out."

If this case had been purposely prepared it could scarcely be a better test of what are the natural, unperverted tastes of man.

Most intelligently did Cicero speak when he said: "Man was destined to a better occupation than that of pursuing and cutting the throats of dumb creatures." If not, then assuredly he is, instead of "a little lower than the angels," but very little higher than the brutes.

"A fog," says a Japanese apophthegm, "cannot be dispelled by a fan"; and neither can a reform be effected in a fortnight. For both time is required.

Under the head *æsthetic* comes naturally physical beauty. Now this, as Ruskin tells us, is not only a possession to be thankful for, but is one that ought to be sought after. Certainly God is not the originator of ugliness and deformity, which are physical evils, any more than He is the originator of sin, which is moral evil. Therefore, if these defects come not from the Creator, they must originate either with man himself, or from the evil and infernal kingdom.

Adam Smith informs us that the most beautiful women in the British dominions in his time came mostly from the lower ranks of people in Ireland, who are generally fed on potatoes. He also says that the peasantry of Lancashire and Cheshire, who lived chiefly on potatoes and buttermilk, were celebrated as the handsomest race in England.

Humboldt tells us that among the Mexican Indians he never saw a hunchback nor deformed person. These Indians are all vegetarians, their chief food being maize.

On the other hand, Professor Lawrence declares that "the Laplanders, Ostiacs and Kamtschatdales, and the Eskimos in the northern, and the natives of Terra del Fuego in the southern extremity of America, are the smallest, weakest, and least brave people of the globe; although they live *almost entirely on flesh*, and that often raw."

THE SANITARY AND UTILITARIAN ARGUMENT.

Poets, it has been said, may be divided into those who have an ear for lambs, and those who have an ear for anæpests. In like

manner, men in general may be divided into those who have a taste for an animal, and those who have a taste for a vegetal diet.

Of the Pythagorean it may be said that, though (in the words of the old saw) he feeds on "neither fish, flesh nor fowl, nor yet a good red herring", yet he can maintain both health and strength full as well as do those who consume all those carrion articles.

It is the opinion of the present writer, after a somewhat protracted examination of the subject, that the human race, regarded as a whole, would probably be better in health, and in many other respects also, if no animal flesh was consumed as food. But, as one man's opinion, or any man's mere opinion, is of but small value on a scientific question, let us glance at some facts and statistics relative both to various national and individual experiences upon the subject. In the first place, it may be affirmed that many persons have been life-long Pythagoreans (or vegetarians) and have maintained themselves in excellent health, flesh and strength. Therefore, it being useless to discuss the possibility of doing that which has actually been done, we assume that human life *may* be (because it has been) comfortably sustained on a purely vegetal diet:

> "Eat leeks in Lide and Ramsins in May,*
> And all the year after physicians may play;"

says an old jingle, whereof it may be said that it contains more truth than poetry.

It has been either explicitly, or tacitly, taken for granted all through this paper that the eating of animal flesh is an artificial and not a natural habit. That this will be disputed, I am well aware, and that the proposed reform will be called impossible, unnatural, Utopian, Quixotic, and by other hard names. But, I would ask those who shall oppose it if they know of any reform of any evil custom that was ever brought about without being first abused, opposed, misrepresented, and combatted? Take, for example, the suppression of slavery on this continent, and the present fight against rum.

We have it for an axiom that there is nothing more inveterate or harder to battle against than long-continued habit, or deeply-rooted prejudice; and, when both these hydra-headed monsters are

* *Lide*=March. *Ramsins*=garlic.

joined together, the task of vanquishing them is indeed herculean: *Hic labor, hoc opus est!* Verily: and Virgil would doubtless reiterate his own words with increased emphasis did he live in these times and come in contact with our own nineteenth century problems.

Venter non habet aures was a Roman proverb; and it is undoubtedly quite as true now as ever it was in Cicero's time.

As before mentioned, the belief that a vegetal diet is the proper diet for man is no new one. Many of the wise of antiquity were of this opinion, and also many of the wise among the moderns, and included with the latter have been, and are, physicians and sanitarians.

Galen tells us (*De Aliment.*) that "acorns afford as good nourishment as many sorts of grain. In ancient times men lived on acorns only; and the Arcadians continued to eat them long after the rest of Greece had begun to make use of bread-corn."

Hippocrates says substantially the same thing, in different words, and so does Celsus. Herodotus informs us that, upon the death of Lycurgus, the Lacedemonians, meditating the conquest of Arcadia, were told by the oracle that there were "many brave *acorn eaters* (βαλανηφαγοι ανδρες) in that country, who would repel them if they carried their arms thither." But, in their pride, the Lacedemonians disregarded the oracle, and invaded the country, and got for their pains a sound drubbing and thorough defeat.

Amongst the Christian Fathers, St. Jerome and Chrysostom both maintained that all animal food was strictly forbidden before the flood.

"And truly," says Plutarch, "as for those people who first ventured on the eating of flesh, it is very probable that the sole reason of their doing so was scarcity, and want of other food."

It is not anywhere throughout this paper attempted to be proved that the eating of flesh is not at the present day *allowable;* but, as says a recent writer, "if it can be shown that a fruit and farinaceous diet is *most consistent with the physical, mental and moral* nature of man, and that it is nowhere forbidden in Scripture, this is all the sanction the vegetarian requires."

Buckhardt, in an account of the Bedouins, says: "Their usual fare (called *ayesh*) consists of flour made into a paste with sour camel's milk. This is their daily and universal dish. The Arabs

never indulge in animal food, and other luxuries, except on the occasion of some great festival."

Mythology informs us that Prometheus first taught the use of animal food (*primus bovem occidet Prometheus*) as well as of fire; while Hesiod avers that before this date mankind suffered from no diseases or ill-health, but luxuriated in a vigorous youth; and when at the close of a long life death finally came, it was without pain.

Now, all these opinions of the wise and thoughtful are worthy, methinks, the careful consideration by us of the medical profession at this day. To us is intrusted the care of disease, and the amelioration of the public health; while, as truly says the philosophic DESCARTES: *S'il est possible de perfectionner l'espèce humaine, c'est dans la médicine qu'il faut en chercher les moyens.*

Let us now glance at a few of the opinions of modern physicians, scientists and philosophers.

Haller (who was as eminent in physic as he was learned in botany) says: "This food which I have hitherto described, and in which flesh has no share, is salutary, insomuch that it fully nourishes a man, protracts life to an advanced period, and prevents or cures such disorders as are attributable to the acrimony or grossness of the blood."

Dr. Adam Smith (*Wealth of Nations*) says: "It may, indeed, be doubted whether butcher's meat is anywhere a necessary of life. Grain, and other vegetables, with the help of milk, cheese and butter, or oil, it is known from experience can without any butcher's meat afford the most pleasant, the most wholesome, the most nourishing, the most invigorating diet."

Sir William Temple, in comment on the dietary habits of the Patriarchs, Brahmins and Brazilians, says: "From all these examples it may probably be concluded that the common ingredients of health and long life are great temperance, open air, easy labor, simplicity of diet,—rather fruits and plants than flesh (which easily corrupts) and water."

Dr. Craigie (*Prac. Phys.*) says: "Diet consisting of animal food is not requisite either to preserve health or maintain strength; and diet of articles from which the flesh of animals is altogether excluded is perfectly adequate to the sustenance of the human body, in a state of good health and strength."

Finally, I will once again quote from the writings of the late Dr. Cheyne, who was a physician in large practice in London, and a man of exceptional intellectual powers: "For remedying the distempers of the body" (says Dr. C.) "to make a man live as long as his original frame was designed to last, with the least pain and fewest diseases, and without the loss of his senses, I think Pythagoras and Cornaro by far the two greatest men that ever were: the first by vegetable food and unfermented liquors, the latter by the lightest and least of animal food, and naturally fermented liquors. * * * A plain, natural and philosophical reason why vegetable food is preferable to all other food is that, abounding with few or no salts, being soft and cool, and consisting of parts that are easily divided and formed into chyle, it has not that force to open the lacteals and so overcharge and inflame the lymphatics and capillaries, which is the natural and ordinary effect of animal food. So that in a vegetable diet, though a delightful piquancy in the food may sometimes tempt me to exceed in quantity, yet rarely—if spices and sauces (as too much butter, oil and sugar) are not joined to seeds and vegetables—can the mischief go further than the stomach and bowels; so that, on more being admitted into the blood than the expenses of living require, *life and health can never be endangered by vegetable diet.* But all the contrary happens under a high animal diet."

Now, for a few actual cases of vegetarianism and its results.

Mr. T. C. Thackrah, of Leeds (*Lec. on Dig. and Diet*), furnishes the following: "A case has recently fallen under my notice in which the individual without professional advice adopted a diet of vegetables. Mr. W. tells me that suffering long under bilious disorders, and obtaining little relief from medical treatment, he tried a strict regimen of vegetables and water. His health and spirits, he assures me, have since been greatly improved, and he is consequently a warm advocate of the *herbivorous system.*"

The late Dr. Alderson, of Hull (England), wrote to a medical acquaintance as follows: "A friend has for a long series of years uniformly continued a plan of water drinking and a vegetable diet, which he adopted on mature reflection; being fully convinced that the contrary mode was luxury and indulgence. His children are living evidences of the good effects of such a plan; there cannot

be a handsomer, stronger, or better family; they possess every physical power in perfection. They have very seldom even required the aid of medical men; they fear not the effects of the common epidemics, nor have they ever suffered from acquired diseases."

John Howard, the philanthropist, than whom it is doubtful if there ever lived a nobler or more unselfish man, performed all his vast labors and travels without animal flesh, and without wine. No man was ever more exposed to pestilential contagions of all sorts. "In 17 years," says his biographer, "he traveled between 50,000 and 60,000 miles, for the sole purpose of relieving the distresses of the most wretched of the human race. Plague, pestilence and famine, instead of being evils that he shunned, were those with which he was most familiar. Such was the result of this man's experience and observation that he earnestly advised others who were exposed to the plague to abstain entirely from the use of animal food."

A writer in the *Gentleman's Magazine* (August, 1787), over the signature *Etoniensis*, gives us an account of one John Williamson, *alias* Pythagoras of Moffat, whom he describes as one of the most original geniuses that ever existed. During the last fifty years of his life he totally abstained from animal food, and was much offended when any was offered to him. He insisted that at best it served but to cloud the understanding, to blunt the feelings, and to inflame every bad passion. His vegetal and milk diet afforded him in particular very sufficient nourishment; for when I saw him he was still a tall robust man, though upwards of four score."

These instances will serve to establish the point in question that human life can be maintained in health and comfort on an exclusively vegetal diet.

Socrates, Plato, Xeno, Epicurus, Epaminondas, Milo and others of the ancients (who were men of like *sense* as well as of like passsions with ourselves), and Dr. Cheyne, Dr. Adam Ferguson, Casper Hauser, John Willamson, and innumerable others among the moderns lived, have all not only lived, but flourished on a vegetal diet; therefore the *practicability* of the question is not open to dispute.

Before the first steamboat started on its first trip, several of the wiseacres of the day proved to a demonstration that such a mode of

travel was impossible. Nevertheless, the steamboat made its first trip, and other steamers have been making similar trips ever since.

Turning from the disgusting sights and odors of a dish of reeking and sanguinary flesh, what more delightfully appeals to man's sight, smell and taste conjoined than a frugal meal of bread, or bannocks, vegetals and fruit?

For that *one* blessed gift of Pomona, the APPLE, it seems to this writer that national gratitude is called for. This call is recognized in the Episcopal liturgy which puts into our mouths thanks to God for "the kindly fruits of the earth." Ay, and kindly they are in a double sense; for, in their production no life is sacrified, and no cruelty to poor dumb beasts is exercised. That the Apple is a national blessing, and that it is the most valuable of all our fruits is, surely, an obvious truth,—*cela va sans dire.*

And the old English jingle, viewed with a physiological and hygienic eye, embodies, doubtless, much more than a grain of truth:

> "Eat an apple on going to bed,
> And you'll keep the doctor from earning his bread."

Certain it is to my own mind that if three fruits were more plentifully used by our patients, they would need our valuable (!) services less often;—apples, grapes and lemons.

I think it was Sir William Gull who awhile ago said in the *Contemporary Review* that when he came home fagged out from professional work he was in the habit of recruiting his strength, not by drinking wine or brandy, but by *eating raisins!* I can myself confirm the excellence of this remedy in nerve wear and tear.

When we survey the vast field of nature, and behold the immense number of vegetal growths which the bountiful Creator has provided for man's needs (the cereals, roots, fruits; the fabacious, bacciferous and drupaceous plants) it would seem that it must strike the intelligent observer that in the midst of such plentitude it certainly is unnecessary to resort to bloodshed and slaughter to furnish forth our tables!

To take one fruit alone, the never-sufficiently-to-be-praised Apple; the number of dishes which a housewife of ordinary capacity can prepare from this single fruit is astonishing. Apples may be baked, boiled, stewed, fried, steamed and roasted. They can be

made into pies, puddings, cakes, dumplings, pasties and tarts. They can be put up as jam, or as jelly; they can be pressed into biffins, or they can be canned by the recent admirable modern processes; and, lastly, they can be preserved in their natural state, or be dried in slices. And thus, due to this excellent fruit's imperishability, it may, with but very little trouble, be preserved fresh in its natural state, through a long cold winter; yes, and even through the entire year. Thus, like the sun and air, this most salutary gift of Heaven may be present with us constantly. To the poor it is an inestimable blessing and a necessity, and but little less so to the rich. From my own experience I can assert that I have never known a man who was an habitual eater of apples, who was not at the same time a healthy person. So essential to the well-being of the community does a plentiful supply of apples seem, that I think it no exaggeration to declare it to be, in all temperate climates, a sanitary question of national importance.

But, not only have we Apples,—we have also other fruits, whose name is Legion; each of which possesses its own individual virtues quite as much as its own individual flavor.

Vegetal acids of some kinds are essential to health. We know that scurvy results from the system being deprived of them, and that this fell plague can be cured by simply supplying the acids naturally existing in the lemon or the lime. Now, the Apple contains three acids, if not more—citric, malic, and tartaric. But, besides these acids, every fruit, due to the subtil elaborations of nature's chemistry, contains also various other elements, which, in ways unknown, contribute to human health; and so certain is this, that he who does not make daily use of these therapeutic agents so freely furnished by nature, may, in all verity, be said to be more stupid than a beast.

That both private and public sanitation would be furthered by a Lessian or vegetarian diet may fairly be said to be capable of proof. It would under such a system be far easier to enforce the precepts of Christianity, the teachings of hygienic science, and the practical doctrines of utilitarianism than it is now.

"It is to be remarked," says Sir G. Staunton, "that the Chinese recover from all kinds of accidents more rapidly, and with fewer

symptoms of any kind of danger than most people in Europe. The European surgeons have been surprised at the easy cure of Sepoys in the English service from accidents accounted extremely formidable." And these good results are by this writer attributed solely to their vegetal diet.

That the vegetarian is a *cleaner feeder* than the flesh-eater is, I think, capable of demonstration. A year or two ago the late Dr. Gamgee, of Birmingham, made an examination of the meat exposed for sale in the principal butchers' shops of that city, and he came to the conclusion that not more than about one-third of it was fit for human food. Many of the animals were proved to have died a natural death, many were diseased, the flesh of others had been so bruised by maltreatment as to be quite unfit for food; while, in some cases the meat was as it is called "high", or "gamy," which is merely a euphemism for the semi-putrescent state.

Now, what occurs in one large town is pretty apt to occur in another large town. What is true of Birmingham is, doubtless, *cæteris paribus*, true of Buffalo. And these discoveries of Dr. Gamgee's are facts, and such facts as every sanitarian and every flesh-eater would do well, methinks, to ponder.

My own cogitations on the subject called to mind the fearfully nasty, but scientifically truthful dictum of Plutarch: "We chew," says he, "the sores of some animals, and participate of the sap and juices of the deadly wounds of others." Faugh! Pho! "An ounce of civet, good apothecary, to sweeten the imagination!"

Now, physicians have to deal with facts, and very nasty and repulsive some of the facts are; but that is the fault of the facts, and not of the physicians. And, certainly, if our fellow citizens are unwittingly doing these horrible things, it is the duty of physicians and sanitarians, who are guardians of the public health, to let the real facts be known. It is this consideration which has prompted me to deal with a subject, which, if influenced by my own volition, I should be more inclined to let severely alone.

But, unless *somebody* had cleansed the Augean stables, the Augean stables would have remained uncleansed; and, unless *somebody* informs the public of what they actually are eating, the public will continue to do as Plutarch tells them they do.

It was but a few weeks ago that an able editorial in the New York *Medical Journal* discussed the question of the possibility of consumption being communicated to man by means of the domestic fowl. This was the foulest charge that had ever been brought against the chickens; but, some facts reported to have occurred in France seemed to make it only too probable. Certain chickens, having ingested the sputa of a consumptive woman, were killed and eaten, and consumption (phthisis) occurred in the eaters of the fowls.

If to partake of such a feast be not literally, as well as metaphorically, to sup on horrors, then, of a truth, there is "no purchase in money." It seems to the present writer that the contemplation of such *possibilities* merely, would suffice to make most men vegetarians for the remainder of their days? I have no hesitation in owning that such is the effect produced on my own mind; for, Plutarch's nauseating words hang in my memory like a burr, and refuse to "out" as stubbornly as did the blood-stains from the hands of Lady Macbeth. Parodying Gonzalo in Shakspere's *Tempest*, I can say: "The wills above be done, but I would fain die a CLEAN death!"

But, as enough is as good as a feast; we will not push the matter too far, nor endeavor to gain any advantage by piling Pelion upon Ossa.

So far as this paper is concerned, I can truly say that I have nothing extenuated, nor set down aught in malice; but have endeavored merely to portray the truth, and set it forth in a plain manner for others to perpend.

Charles Lamb, when he read the line of the poet:

"The lamb thy riot dooms to die this day,"

used in his humorous way to declare that he never could see what *riot* there was in a boiled leg of mutton with turnips and caper-sauce!

Yet, had he (C. L.) been personally present at the slaughter of this innocent victim of man's cruelty, I do not doubt but that his gentle nature would have been keenly pained by the sight; and, also, that the vision of the poor slaughtered creature would have somewhat dulled the edge of his appetite for the feast. For, without

question, unless a man has become hardened and dehumanized by the frequent sight of blood and slaughter, he will experience pain on beholding the sufferings and assassination (for, in truth, that seems its proper name) of helpless and innocuous creatures,—those very creatures upon whom Charles Lamb himself has conferred (in his praise be it said!) the tender and appropriate title of *Our Poor Relations.* And, indubitably, it may, in all fairness, be asked, what right we (the self-styled lords of creation) have to go about the world torturing, slaughtering and devouring God's helpless creatures,—especially when so to do can be shown to be not only entirely unnecessary, but even injurious to ourselves?

And, without laying claim to any vaticinatory powers, the present writer does most firmly believe that (in no Utopian sense) the time will surely come when this useless torture and slaughter shall cease out of Christian lands; and when man, returning to the natural way in which his Maker intended he should live, will no more think of slaying and eating a harmless ox or sheep, than he would to-day think of slaughtering and devouring his defenceless and decrepit grandmother!

And, when, finally, that happy time does arrive, he will then be in a better frame of mind to appreciate those noble verses of Coleridge, in which he truly tells us that:

> "He prayeth best who loveth best
> All things both great and small,
> For the dear God who loveth us
> He made and loveth all."

A Convenient Vehicle for Cocaine.—Dr. Bignon, of Lima, has recently advocated a solution of cocaine in liquid vaseline or petro-vaseline. It will dissolve as much as two per cent. of the drug, and the solution had the great advantage of not being liable to decomposition. It is said to be very active as a local anæsthetic and to produce a more extended zone of diminished sensation. Less doses can thus be used and the risk minimized of undesirable symptoms, due to the occasional toxic effect of the drug. It is very useful in ophthalmic practice, a single drop being sufficient to dull sensation, and its action is rapid.—*Medical Press.*

SOME PECULIAR CASES OF DYSPNŒA.

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[Read before the Physicians' Club.]

The history of cases is said to be tiresome, and, therefore, an attempt shall be made in the following pages so to arrange the facts that a lesson may be learned therefrom.

One night, in the spring of 1883, I was hastily summoned to attend a child living at a distance of two miles. The father came for me, and assured me that his child was "dying from something wrong with the lungs."

On reaching my patient I found a boy under three years of age, apparently in perfect health. More careful examination showed that the little fellow was somewhat excited, the circulation and respiration being rather hurried, and a certain amount of restlessness present. I learned that about two hours before, the child, having been put to bed in his usual good health, wakened in a state of excitement and was observed to be breathing very rapidly. This symptom increased in intensity until the patient's breathing could be counted only with difficulty. This condition had subsided shortly before my arrival.

Somewhat vexed at having a night's rest disturbed for so slight a matter I departed, admonishing the family not to be so easily frightened. Very early in the morning I was once more sent for, but was deliberate in responding to the call. When the patient was seen, about nine o'clock, he again appeared to be in good health, but the family insisted that for a period of two hours he had been in a dying condition, the attack having been like the previous one, only more severe. It was repeated on the evening of the second day, again during the second night, and in the morning of the third day.

This last time I was able to see the case during the height of the paroxysm, and it was truly extraordinary in its manifestations. It was an attack of dyspnœa, but a peculiar one. The respiratory efforts were shallow, extremely rapid, and very difficult to count; indeed, it was at times impossible. Occasionally an expiration was sufficiently prolonged for the escape of a moan or cry; then, on it ran again at the rate of a hundred or more to the minute. The

pulse was also rapid and indistinct, but at times could be counted, and was found to be out of all proportion with the respirations, and relatively slow. The face was of a dusky red color, and the blood seemed imperfectly oxygenated. Swallowing was difficult; the patient seemed afraid to make the effort. This seizure was longer and more severe than the preceding ones.

In the afternoon the condition returned, and Dr. Thomas Lothrop was invited to see the case in consultation. After careful study—in the absence of the indications of other affections—it was concluded that we had to deal with a neurosis, and bromide of potassium was given in doses of five grains, every two hours, when needed.

On the following day dyspnœa returned—possibly with lessened intensity—in spite of the bromide, and, remembering the effect of opium on the respiratory function, I prescribed that drug, giving such doses of the tincture as were required to obtain a safe sedative effect. This proved to be a happy prescription; the child ceased to have dyspnœa, and after a few days the opium was withdrawn, tonics administered, and nutrition carefully increased.

The child recovered perfectly, and has had no recurrence of the dyspnœa at last accounts. Here was a paroxysmal dyspnœa, unconnected with disease of lungs, heart or kidneys, so far as was ascertainable by careful examination. Up to the time of the opium prescription the child grew worse, and in his worst condition was in a state of great exhaustion which, in my opinion, soon must have proved fatal. If there are those present who regard my statement as a probable exaggeration, I invite their attention to the history of a case, almost precisely the counterpart of that just described, which occurred in the practice of my friend, Dr. Frederick, to whose courtesy I am indebted for the privilege of incorporating his report of the case in this paper.

D. H., male.—The mother's family history was intensely neurotic. In August, following birth, this child had cholera infantum, and, following that, entero-colitis for two weeks. After this he nourished well; took on flesh and seemed in health till early in November of the the same year (1885). At this time he began to have peculiar attacks which the mother described as characterized by paleness about the mouth, a pinched expression of the face and rapid breathing.

The spells would last but a few moments, and then he would be as well as now. A careful examination of his heart and lungs failed to reveal any perceptible lesion.

At several different times I was hurriedly called to see him, to find him each time all right when I arrived. These attacks of dyspnœa recurred more frequently, grew even more severe and of longer duration. About ten days after their beginning I saw him in one for the first time. The pulse was very rapid, some where around 160–180, and the respiration over one hundred per minute. The face was somewhat cyanosed; the child was fully conscious, and with eye-balls protuding, and hands and arms flying about, was making frantic endeavors to get enough air. Examination was followed by negative results, as the tumultuous breathing masked all other sounds.

Nothing I gave the child did it any good. Antispasmodics, nerve sedatives, chloral, bromide, opium, all in full doses for one of its age, were of no avail. In three days after I first saw it in an attack, that is, about two weeks after they were first noticed, he died of heart failure. Autopsy thirty hours after death; Drs. Stockton, Lothrop and myself present. No lesion was discernible in any of the viscera examined, viz., heart, lungs, stomach, liver, spleen, kidneys, and intestines. The brain was not examined. The autopsy pointed by exclusion, as did the diagnosis from symptoms and exclusion, to the medulla as the probable seat of the trouble. At all events, I do not doubt that the intense dyspnœa was nervous in its origin.

The following case was one of the most interesting in my experience:

S. R., a commercial traveler and confidential clerk, aged forty-seven years. For the first time married, three years ago, the father of two healthy children. Family history good, save that his father died at about his age of some peculiar nervous malady. The subject was of a sanguineous temperament; six feet high; weighed two hundred pounds; was splendidly proportioned, and the picture of health.

During his bachelor life he was somewhat irregular in his habits, but not dissipated, with the exception about to be mentioned. He had never been sick, excepting an attack of supra-orbital neuralgia

ten years before, which attack was very prolonged and of great intensity. He was treated by several physicians, some of the best in Chicago. Relief was only obtained by drinking alcoholics, and for over a year he tippled pretty freely for the relief of pain, and, when the pain disappeared, as it ultimately did, he, for two or three years, tippled pretty freely for the gratification of appetite. He finally concluded to stop drinking, and being a man of strong mind he discontinued abruptly, never tasted alcohol again (of his own volition), and seemed none the worse for his experience, except that his hair and beard were prematurely gray. He worked very diligently and threw his great energy into business.

About one year before his dyspnœa began he had a sudden return of the neuralgia. It was very severe. He was discouraged, and consulted me. I prescribed large doses of strychnine. He was soon relieved. During the following summer, while traveling in Pennsylvania, he had an attack of dyspnœa that was called asthma by a local physician, who prescribed for him the tincture of lobelia with benefit. But the trouble recurred and recurred again, gradually becoming worse, and after about six weeks he returned to his home to make a business of getting well.

After careful examination I found his heart and lungs sound, kidneys sound, and no evidence of disease save a peculiar breathing, which in lieu of a better name I called asthmatic. This breathing was not continuously bad, but was never entirely absent. It was paroxysmal, and occasionally very distressing. At such times there was to be heard all over the chest high pitched, bronchial breathing, at times almost sibilant; but never the varied, large, small and mixed sounds of typical asthmatic breathing. There was little cough or expectoration.

I encouraged him with a favorable prognosis and treated him in several different ways, but while he was temporarily relieved by some of these measures, the seizures continued and became worse. It was discovered that he had a remarkable tolerance for narcotics. Nothing less than half a grain of morphine hypodermatically availed him much, and the doses of atropine, hyoscyamin and stramonium required were in ratio larger. The nitrates, including amyl and nitro-glycerine, the bromides, the iodides were

alike impotent. Emetics, which at first afforded relief, became ineffectual.

I left him at eleven o'clock one night, breathing rather better than usual, but having an unaccountable anxiety about himself. For the first time he became afraid of the hypodematic syringe. He insisted that it would soon cease to benefit him, and inquired what was to be done next.

Two hours afterward I was wakened by the message that my patient was dying. It appeared that he had been quiet until a short time before, when his breathing became stertorous and he was found to be unconscious. When I arrived he was apparently dead. Artificial respiration was established, subcutaneous injections of brandy and strychnine were given, and I had the satisfaction of getting him to breathe again, although it was Cheyne-Stoke's respiration of a pretty poor quality. Dr. Frederick came to my assistance. We carried out more perfectly the plan adopted and had the patient in about the same condition at daylight, when Dr. Tremaine was called in. The latter gentleman advised croton oil, which was given, and followed by the result prophesied, for as the purging began the beneficent effect of the treatment was shown in the improved character of the breathing, and, a few hours later, by the returning consciousness of the patient. At length he was able to take nourishment and stimulants; his urine was withdrawn by catheter and found normal; and we waited coming events. We had not long to wait. Forty-eight hours after he had another attack like the last, but not coming on quite so suddenly. From this he could not be resuscitated and died in coma after a period of failing respiration.

Autopsy thirty-six hours after death, made by Dr. Edwin Clark, in the presence of Drs. Tremaine, Frederick and Mickle.

Before the examination opinions were expressed as to the probable lesion. Several days before, in discussing the case, Dr. Frederick and I concluded that the fault was in the central nervous system; and after seeing the case Dr. Tremaine agreed with us in locating the trouble in the floor of the fourth ventricle, and suggested the possibility of a slight hemmorrhage, endarteritis or brain tumor.

Upon opening the body the lungs were found sound, save a small calcareous mass in the lower lobe of the right lung, and an emphysematous patch in the lower lobe of left. (This condition was recent, came on a few days before death as a result of violent respiratory efforts, and was recognized by subjective symptoms and physical signs.)

The heart was normal.

Slight chronic endarteritis with atheromatous degeneration was noticed in the aorta.

The digestive tract and kidneys were sound.

On opening the calvarium the contents appeared healthy, with the following exceptions:

A remarkable endarteritis obliterans had taken place in the basilar artery, and, to some extent, in the posterior cerebral and the vertebral arteries. The walls of these vessels had become thickened by atheromatous changes to such an extent that the circulation of blood through them was impeded, and some of their branches had become closed to the current.

Certain portions of the inferior border of the left posterior cerebral lobes were believed to be degenerating as a result of changes in the posterior cerebral vessels. There were no hemorrhage or other lesions discoverable.

Let me narrate another, the last case of the group:

In September, 1886, I saw a little girl, eleven years old, of uncertain family history, of a highly nervous organization and with a strumous diathesis. She was subject to attacks of sub-acute bronchitis, through several of which I had attended her. On the present occasion she came to my office complaining of a cold. I found her breathing rapidly, with a temperature of 100° F., and her pulse accelerated. She was sent home to bed and given a simple medicine. She became worse and at nine o'clock P. M. I again saw her, and prescribed a little Dover's syrup. This was done to allay her restlessness and cough.

There was little learned by physical examination. As usual she had high pitched bronchial breathing, with sibilants and sonorous sounds; conditions very common with her.

She steadily grew worse and in the morning her breathing was eighty to the minute, very shallow, the respiratory sounds harsh and

loud, and no vesicular sounds in lower parts of her lungs. Her pulse was rapid, and temperature 101° F.

She had a very anxious expression and I think that I had also.

Dr. Burwell was asked to see the case with me. He agreed with me that the case was pretty nearly hopeless.

In the afternoon it was decided that there was for some reason an intense pulmonary congestion, and Dr. Burwell suggested blood-letting.

Now, of all the subjects known to me, this was the last one that I should have bled under ordinary circumstances; but after hearing the doctor's arguments that it would be the means most likely to relieve the congestion, and conceding that the case showed little likelihood of improving under our stimulating measures, I concurred in his views, and the child was bled. Not over four ounces were abstracted, but the pulse improved under it, and the child expressed relief. The respirations fell to seventy per minute.

The next morning the chest sounds were still harsh, but the signs were not those of ordinary pneumonia. There was not as much dullness on percussion, there were some vesicular sounds; there was not very marked broncophony. It was rather the expression of a lung congested, than a lung inflamed and solidified. Gradually these sounds improved, but it was singular to note the continued rapidity of her breathing. Even after she seemed quite well, was taking nourishment abundantly and wanted her books and dolls, she was still breathing forty or fifty times a minute.

This patient recovered. I have always thought that the bleeding saved her, but I have grave doubts as to her having had pneumonia in the strict use of the term. The rusty sputum and true crepitant râle were not present.

The interesting points were the rapid respiration, coming early and departing late in the attack; the intensity of the congestion; the slight febrile disturbance.

Since this occurred the child has had several attacks of slight bronchitis, requiring little medicine, but always attended with rapid breathing.

Many times have I seen children, suddenly taken ill with what threatened to be bronchitis or pneumonia of severe type—if the

frequency of respiration and dyspnœa are to be our guides—who have as suddenly convalesced after a few doses of aconite or antifebrin.

Frequently I have seen cases in which the lungs were much involved, cases even proving fatal, where there certainly was less apparent dyspnœa till the very last.

Similar conditions are met with in adults.

To review these cases logically would require too much time; I therefore crave your forbearance for the somewhat dogmatic conclusions that follow:

First—There are cases of dyspnœa in children and adults centric in action.

Second—These may be neuroses, or may be dependent upon structure changes in the centers of respiration.

Third—It is possible for such neuroses to prove fatal.

Fourth—It is probable, in some cases of bronchial or pulmonary affections, that the dyspnœa is out of all proportion to the extent of structure involved.

Fifth—It is probable that this unusual dyspnœa may mislead us as to the extent of the disease, on the one hand, and, on the other hand, that it may prove so potent a factor that an otherwise manageable case may become most alarming.

The Treatment of Asthma.—Lazarus concludes an important study of this subject with the following propositions: (1) The prophylaxis of bronchial asthma must be based upon careful investigations of hereditary and constitutional conditions, especially those affecting the nose, throat and chest. (2) The asthmatic attack, as such, should be relieved as quickly as possible. Potassium iodide with chloral in large doses, once or twice repeated, is most effectual. In certain cases operative treatment of the nose and throat is recommended. (3) The treatment of the sequelæ of the attack (bronchitis, emphysema) is very important, since these conditions predispose to the recurrence of asthma. In general the pneumatic cabinet constitutes the most efficient means of treatment; for chronic catarrh potassium iodide, with the occasional substitution of terpinhydrade, is indicated.—*Berl. Klin. Woch., February 14, 1887.*

The Medical Press

OF WESTERN NEW YORK.

Published by THE MEDICAL PRESS ASSOCIATION of Western New York.

EDITED BY

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WITH THE ASSISTANCE OF

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Subscription price: $2.00 per Annum.

All business communications should be addressed to DR. JULIUS POHLMAN, Business Manager Buffalo Library Building; all others to the Editor, 510 Delaware Avenue.

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BUFFALO, N. Y., JUNE, 1888.

RECENT RESEARCHES ON PTOMAINES.

An important article, "On Ptomaïnes in Relation to Disease," by Dr. J. Dixon Mann has appeared in March and April numbers of *The Manchester Medical Chronicle.* We believe that due consideration has not even yet been given this subject, at least by the majority of the profession, and hail such articles with delight. Dr. Mann recalled the demonstrations of akaloidal bodies of animal origin by early observers, and amongst the later ones, by Brieger particularly. These substances, when produced during the processes of putrefaction are designated as ptomaïnes. To those formed by the processes of normal life, Gautier applied the term leucomaïne, while a term is wanting for such bodies as are produced during life by morbid changes. The term ptomaïne as used by the writer refers to any animal alkaloid, whatever its source, unless otherwise qualified. What seems to us to be a salient point in this discussion is well stated in the following quotation: "In those diseases which are known to be caused by a contagion from without, there are reasons for believing that the agency by which the disease is communicated does not, by its inherent properties, produce the train of symptoms which follow, but rather that it acts as a ferment, and that the products of the consequent splitting up of the tissue constituents are the actual cause of the accompanying symptoms." It often appears that too much attention has been given to the study of micro-organisms alone, and we believe that immense benefit is to

accrue from the combined study of such organisms and their excretions. Assuming that at least all putrefactive and other ptomaïnes generated through morbid processes are the result of the nutrition of germs, the difficulties encountered during a search for pathological animal alkaloids are numerous. Again quoting from Dr. Mann: "(1) It is obvious that the newly formed substances being antagonistic to life, as soon as a lethal amount has been formed, death results. If the substance is very active the quantity necessary to produce death will be small, and being distributed throughout the organism will be difficult to isolate. (2) These alkaloidal bodies are very unstable, and the means taken for their identification, unless great care is exercised, may hasten their transformation into other combinations of a totally different nature. (3) The post-mortem changes which intervene ere the investigation can be commenced tend to complicate matters by introducing other chemical changes, and possibly destroying the identity of the combinations previously formed." In view of these statements we can readily conceive how difficult it is to separate pathological animal alkaloids *post-mortem;* that is to say, to separate those formed before death. Attempts have therefore been made to cultivate the specific germ in suitable media and to ascertain the chemical products and changes arising in such media, induced by the growth of the germ.

The author reported the results of personal experimentation in three cases. The extractive process of Brieger was followed. From the viscera of the first case a considerable quantity of cholin and an alkaloid resembling typhotoxin in reaction were obtained. Cholin is comparatively well known, and, according to Brieger, is the first putrefactive alkaloid formed after death. The ptomaïne resembling typhotoxin was used in experiments on guinea pigs. Four minutes after 5 mgr. of the hydrochlorate of this alkaloid had been introduced hypodermically into the circulation its effects were first manifest, and in from fifteen to twenty minutes death occurred, due to motor paralysis. A notable effect of this poison manifested in the alimentary tract was a profuse diarrhœa. We say notable because occurring as it did from the ptomaïnes of a typhoid case. It may have been merely coincidental. The second case proved negative. Ptomaïnes from the the third case (septicæmia) were actively

poisonous and exhibited effects similar to those seen in the first case, excepting the absence of discharges from any of the mucous membranes, especially the intestinal. This is a striking fact, remembering that the first case was of typhoid fever, while the case under consideration was not. It leads us to connect the ptomaïne extracted all the more closely with the pathological cause. The enquiring mind justly asks, Were not these animal alkaloids merely *post-mortem* and putrefactive in origin ? Brieger has shown that cholin is the first putrefacative alkaloidal product obtained after death, and Dr. Mann states that this is also his experience. Cholin is only very slightly toxic. We must also remember that the extractive processes were commenced as early after death as possible, and that the powerfully toxic putrefactive alkaloidal bodies of crystalline nature and whose chemical constitution is known, are developed much later, from six to seven days after death. The question of identification deals not alone with the chemical composition of the ptomaïne, but also with the association of the alkaloid and the disease from which the patient died in whose body the ptomaïne was found. Many difficulties arise later during attempts at recognition;—the small quantity of the ptomaïne necessarily found, the liability to chemical changes after introduction into a healthy animal's body, etc. Then, again, we must continually bear in mind the space separating man and such animals as can be used in physiological experimentation. We overwhelm any organism by the comparatively large quantity introduced at once, the ptomaïne acting as a virulent poison, and not being given time in which to manifest its specific action.

There exists a marked difference between the toxic action of alkaloidal bodies procured from cadavers recently dead from contagious diseases and those ptomaïnes secured in putrefying bodies dead from a non-contagious disease. Brieger has shown this difference very clearly, while Dr. Mann's cases add more weight to Brieger's results. It can therefore be taken with tolerable certainty that such products as typhotoxin, etc., are not putrefactive in origin but arise primarily through the contagium of an infective disease, whatever this may be. It is coming to be pretty well accepted that micro-organisms constitute this contagium. To cultivate such germs in suitable media is our best substitute and refuge. Though the

conditions are not exactly parallel, still the parallelism is sufficiently true to be of much service. Similiar changes in the culture media to those occurring in the diseased body, it is to be hoped, will ere long, be conclusively demonstrated. Brieger's typhoid-bacilli producing typhotoxin in the culture-medium are rays of sunlight through a darkened sky. In some recent work with cultivations of Koch's comma-bacillus Brieger has brought out many additional valuable facts. Pure growths in sterilized beef tea were sterilized at intervals of from twenty-four hours to six weeks. They were afterwards subjected to processes similar to those applied to recent cadaveric tissues. "Four ptomaïnes, choline, cadaverine, putrescine and methal guanadine, all of which belong to the order of cadaveric alkaloids, were found to be present at one or other period of cultivation." Two other very toxic alkaloids were also found in small quantities. "We have here an instance of a pathogenic micro-organism producing six distinct ptomaïnes. * * * Two are probably specifically related to the micro-organism, whilst four are common to them and to the bacteria of putrefaction." Bocklech has shown that in at least one case, micro-organisms existing under differing environments and conditions may produce ptomaïnes whose chemical composition and toxic effects are widely dissimilar according to such changes in conditions and environments. In cultivations of vibrio proteus alone, comparatively harmless ptomaïnes were obtained; while from a mixed growth of this bacillus with bacteria of putrefaction, methal guanadine, a highly toxic alkaloid, was extracted. This fact may help to elucidate differences of severity of the same disease at differant times. The question of typhoid fever in relation to the so-called typhoid bacillus was clearly discussed by the writer. The introduction into certain animals of this micro-organism, it is held by many observers, is followed by symptoms analogous to typhoid fever in the human subject; also that the germ stands as the cause of these effects, which are true typhoid symptoms. Per contra, many equally competent experimenters claim that no such results follow. The usual method heretofore has been to have the germs enter per orem. Kilcher has within a very short time reported some valuable and important observations pertaining to this question. This experimenter injected the cultivation into

the cæcum, having previously made a laparotomy, obviating, of course, any alterations or changes that would otherwise occur if the contagium had been introduced through the mouth.

Invariably, characteristic symptoms followed, and changes similar to those seen in typhoid fever in the human subject were found *post-mortem.* The dejecta from animals so treated were capable of communicating the disease to others. Only the bacilli are competent to produce the intestinal lesions, while their chemical products—ptomaïnes—act purely as toxic agents. The toxicity of a sterilized culture varied with the age of the growth, being increasingly greater up to the seventh day. Serotina found also that sterilized typhoid cultures produced *toxic* effects similar to the non-sterilized, but he did not emphasize the fact that the toxic symptoms alone were alike. We are sure that had the features of communicability been compared a great difference would have been found. If an animal that had been subjected to the above-mentioned experiments recovered and was used a second time, it was remarked that it either escaped entirely or suffered in a mild degree only. Roux and Chamberland have found that bacteria excrete chemical products which, when in sufficient quantity, are found in their own growth. If, for example, a culture of the cocci of septicemia is filtered through porcelain, when it ceases to grow and fresh cultures are added to the filtrate, they will not flourish. If the filtrate is added to normally growing similar cultures their growth is at once checked. Metschnikoff has demonstrated, in a degree, the natural check exerted by living tissues against pathogenic organisms. Healthy, active, living cells have the power of absorbing and destroying these bodies. Now if the system is below par, so to speak, such cells have lessened functional powers and therefore the animal falls a victim. The experiments of Roux and Chamberland offer an explanation of the immunity from second attacks of diseases like typhoid, etc.; but accepting the hypothesis that the production of ptomaïnes is inimical to the repeated growth of *contagia viva*, we must believe that such soluble products as we know these animal alkaloidal bodies to be must remain in the tissues and circulation so long as the immunity holds, or our explanation falls. Dr. Niven has offered a better theory to elucidate the action of the so-called self-protective fevers. This

gentleman brings forth the idea that the molecules of the tissues undergo a slight rearrangement of elementary constituents, or a change in the strength of their mutual links, which would alter their attitude towards pathogenic micro-organisms. Dr. Ray Lankester, in the *Hospital Gazette*, wrote that he believed it was a matter of educating the white corpuscle: an arsenic or morphine *habitue* enjoys his freedom from ill effects through having gradually accustomed the white corpuscles to consume the poison. In a like manner the white corpuscles can be taught, says Dr. Lankester, to take care of the micro-organisms of disease.

Dr. Mann's article is a continued paper of some length, but of the greatest interest, and will well repay careful study because of its suggestiveness.

THE SURGICAL TREATMENT OF GOITRE.

The operation of total extirpation of the thyroid glands for goitre has recently been attended with considerable success. But the immediate dangers attending it, the great care which must be exercised not to injure the recurrent nerve, and the frequency with which, in younger subjects, it is followed by that peculiar cachexia known as cachexia strumipriva, and myxœdema, have prejudiced surgeons against the operation and led them to try various methods of reducing the size of the glands by influencing its nutrition. Among these, ligature of the thyroid arteries has been most successful. This is an old operation recently revived by Wölfler, and is rapidly gaining in favor above all others. Billroth reports four cases operated on by him in this way. In three of these the result was all that could be expected. The operation, he finds, is more difficult than extirpation, especially where the gland is much enlarged; and moreover that it is not so simple and easy a matter to ligate the inferior thyroid artery, because it usually has extremely thin walls. No secondary hemorrhage occurred in any of his cases.

The first effect of the operation is anæmia of the very vascular tumor, so that it is softer and smaller than before. The second effect is modified nutrition of the gland; the arteries are obliterated; the epithelium and interlobular connective tissue disappear, so that only a mass of tough connective tissue remains. Gangrene does

not occur, because even after ligature of all the four arteries a number of small vessels from below and from the larynx carry sufficient blood to the gland to prevent rapid death, and the system is gradually accustomed to the want of the gland, so that the cachexia is not so apt to follow, if at all.

But atrophy can only take place in living, previously well nourished tissues; and careful examination of a large number of bronchoceles will show that in most of them necrobiotic changes have taken place and that there are fields in which no circulation exists. These, of course, cannot be affected by ligating the arteries, and whether such modified tissues can be absorbed under such circumstances is very doubtful. It follows, therefore, that only the rapidly growing tumors of this class, and especially if occurring in young subjects, are fit cases for this operation.

The question arises: Will such atrophy be permanent? If all four arteries are successfully tied,—Yes. If the circulation through them is not entirely cut off or is re-established by the vasa vasorum,—No. But if the glandular epithelium is once degenerated, the gland must remain atrophied. If circulation is established early enough the goitre invariably returns.

From an æsthetic point of view this operation is also much more satisfactory than total extirpation; for, though the latter leaves but one scar, there remains an ugly depression in front of the sterno-mastoid and along the side of the larynx which, by the former operation, is filled in with a bunch of tough connective tissue consisting mostly of capsule of the gland, while of course there are more scars.

RECOGNITION OF THE GERMS OF ERYSIPELAS IN THE AIR OF PATIENTS' APARTMENTS.

No one denies that erysipelas is both contagious and infectious, and yet it is satisfactory, notwithstanding the too frequent clinical demonstrations of this fact, to have such experimental proof as Van Eiselsberg has recently furnished (*Archiv. für Klin. Chir.*, *XXXV.*, *1.*). In one of Billroth's common wards containing twenty patients, he exposed prepared gelatine plates in various situations, under the beds, on the tables, etc., for fifteen minutes. These plates were then cared for in the usual way in the laboratory. Within forty-eight

hours a large number of different bacteria were seen developing, the only pathogenic organism found being the staphylococcus aurens (pyogenic), and this but once.

Examinations conducted in a precisely similar manner were then made in a ward in which a patient with erysipelas had been placed and in which, soon after, three other patients with granulating wounds had been infected with the same disease. The gelatine plates now showed numerous colonies of a streptococcus, which in size, appearance, method of growth and effect when animals were inoculated with it, proved itself identical with Fehleisen's streptococcus erysipelatis. Further investigations showed how this organism was often cast off with the desquamation, and thus directly or indirectly through the atmosphere was distributed.

If any further evidence were needed to make apparent the necessity for complete isolation of such patients, Von Eiselsberg's researches would certainly demonstrate it. They further show how, by unclean hands and instruments, or by improperly cared for dressings, the infectious material may be transmitted from one to another. They are quite in accord with the results gained through Emmerick's labors. He examined the air of a dissecting room according to Hesse's method, and was able there to find the microbes of erysipelas in large numbers.

* * *

Dr. A. R. Davidson died suddenly at his residence in this city, on May 25th, of pneumonia. He had been sick but a short time, having been stricken down while in apparently perfect health. From the onset his malady assumed a very grave type, its malignity being early recognized by the medical friends who attended him with a devotion and assiduity that would have overcome anything less severe.

He was an alumnus of the Medical Department of the University of Buffalo, in which he once held a lectureship. Of late he had held the chair of Chemistry in the Niagara University. Devoted to his studies, untiring in professional pursuits, bringing to bear upon them a high degree of ability and industry, his untimely death at the age of forty-four leaves a vacancy in the various circles to which he belonged which it will be very hard to fill.

A FEW weeks ago the Governor of New York saw fit to nominate for the position of Health Officer of the Port of New York a citizen of Buffalo, a man of exemplary life, of excellent address, of high professional reputation and politically of the same party as the majority of the Senate. This gentleman had given satisfaction on various exciting occasions and under many trying ordeals. And yet the Senate have just failed to confirm the nomination of Dr. E. C. W. O'Brien for no reason that can be urged as an excuse, and only because the majority were so entangled in the net of an arch-wire-puller that they did not dare break through its meshes and vote as public policy and common weal demanded. Still these politicians are the men who control us; even in matters of vital import. Some methods should be found by which they might be justly and suitably rebuked for such lack of discretion and decency.

* * *

A SCHOOL of Instruction for nurses has just been opened in connection with St. Luke's Hospital in Utica, the principal feature of its opening exercises being an interesting address by Dr. W. E. Ford. In the course of this he made the following very sensible remarks:

"In smaller towns like this, where there are few trained nurses, the business of nursing has fallen into the hands of people who have failed in other occupations. I should rather that a sick man be left to the tender mercies of his disease than that his recovery should be jeopardized by an officious, ignorant and talkative nurse. It is for the very purpose of supplanting these persons, or at the very least of teaching those who are willing to learn, that this school has been inaugurated. Every person cannot become a good nurse. I do not believe that any one who has reached middle life and who has failed in other work, or who seeks to make a living in the easiest possible manner, can be trained into a good nurse."

* * *

AT the last session of the Central New York Medical Association, officers were elected as follows:

President—Dr. W. C. Bailey, Albion.

Vice-President—Dr. W. J. Herriman, Rochester.

Second Vice-President—Dr. F. M. Pasco, Red Creek.

Correspondence.

HAMBURG, April 14, 1888.

My Dear Doctor—After leaving Vienna I went to Berlin for the purpose of doing some work in Koch's laboratory. The courses last one month and are so popular that application for admission some weeks in advance is necessary. Each person is required to furnish his own microscope with oil-immersion lens and Abbe condensor. Upon entrance you are furnished with a long paper upon one side of which is a list of the things that you are to buy, and on the other the things which the Institute furnishes you. By some accident the material which costs anything is put on your side and that with small value upon the other. In short, the Institute loans you a small amount of glassware and through some unexplained generosity a desk and stool and the rest you purchase yourself. The laboratory opens at 9 A. M. and you have about thirty minutes in which to arrange things for work before the usual morning lecture is given by the assistant in charge. This lecture usually anticipates the work for the day. The micro-organism to be studied is discussed regarding its morphology, biology, identification and methods of staining. Especial stress is laid upon its relation to medicine or surgery when such exists. Koch himself lectures three times during the week in the large lecture-room of the Institute. This ended, the work proper begins. Pure cultures are given each member which he examines first in the "hanging drop", of water if only for immediate examination, of bouillion, if for preservation for spore formation. Cultures are then made upon sterilized potato, gelatine, agar-agar or blood serum, according to the micro-organism being investigated. Because of its wide range of applicability gelatine is much used. It is prepared according to Koch's formula, now almost uniformly known, and, of course, then thoroughly sterilized upon three successive days. Thus prepared, three plate cul-cultures are made to which especial attention is given in the way of the macro- and microscopic appearance of the colonies and their enumeration. After sufficient time specimens are taken from the third plate, it being the purest, for staining, and also from this plate

test-tube cultures are made for preservation. Each day a new micro-organism is studied, and this, with the care and investigation of cultures made previously, brings the hour for closing (5 P. M.) before you know it. Animals, especially the rabbit and guinea-pig, are much used to illustrate the effect of germs upon the economy, both by the assistants and the students. After death tissue from the various organs is stained with appropriate agents and examined. Thoroughness is a marked feature of the course; nothing is omitted, and futhermore the student himself is required to do every detail in the making of culture material, sterilization, etc. As a result one gets a good grounding in the principles of bacteriology and a thorough knowledge of the technique as well. There are, however, some deficiencies which, remedied, would enhance the value of the course. In the first place an improvement in the corps of assistants; some of whom are as poor as the others are good. All, undoubtedly, have a good knowledge of the subject, but it is quite as essential that they know how to communicate this knowledge to their hearers, and in this respect some of them are wofully deficient. Again, the laboratory should be better equipped for work than it is. Some of the necessary things are lacking both in quality and quantity, and the student frequently finds himself inconvenienced in his work on this account. Then too, in winter, the room is uncomfortably cold. The entire building was, evidently, in days gone by a tenement house, and has all the ventilation and coldness common to such structures. Odors, too, strongly suggestive of sewers, are not wanting in places where one would not expect them. These, if not especially harmful to health, are at least out of place in a Temple of Hygeia. Still, these deficiencies are not vital, and whoever takes the course can get a good substantial return for his time and money. The course costs at least twenty-five dollars or more, depending upon the number of animals used for experiment, etc.

This work ended, I came on to Hamburg to study clinical surgery under Schede. In a letter to the MEDICAL PRESS some time ago Dr. Mynter gave such a complete description of this immense hospital and of Schede's work and views that but little remains for me to add. The clinic is, Billroth's excepted, I believe, the largest in the world, not infrequently three operations

going on at one time, and commonly two. I have seen none in which the work is so thorough or the antisepsis so perfect. For this latter, bichloride, iodoform gauze and an abundance of bandages are the main reliance. Acting upon the principle that under complete antisepsis a large wound heals as quickly as a small one, Schede's incisions are sometimes quite astonishing. Time and experience only confirm his opinion of the value of the blood-clot in the healing of wounds. Pure chloroform is the anæsthetic. It is a matter of regret that this clinic has no one to record its cases and give the surgical world the benefit of them. Schede, himself, in addition to being very busy, seems advese to giving publicity to his work, and the assistants have no time to do it for him. He combines in an eminently proper degree the radical and the conservative. Before a better acquaintance with his work one might be inclined to deny him the latter characteristic, for some of his operations are very bold. But he knows his own ability and therefore undertakes cases which an inferior surgeon would, perhaps, do better not to imitate. That his confidence is justified is shown by his excellent results. A case in point illustrates his thoroughness. Some weeks ago an elderly woman presented herself at the clinic with mammary carcinoma, which was removed. Recurrence took place involving the sternum. A second operation was made in which more than the middle third of the same with its contiguous costal cartilages were removed and the anterior mediastinum thoroughly cleaned. The heart and adjacent portions of the left lung with only their pleural investment lay exposed. Protective supplied the place and function of the removed parts. An hour later extreme dyspnœa ensued but gradually passed away. Then pneumonia of a severe degree for some days threatened the life of the patient, but from this she recovered and is now making a rapid convalescence. A recurrence of the original disease is, of course, not unexpected, but may be considerably delayed. The clinic will soon be moved to the new hospital at Eppendorf in the suburbs of Hamburg. It is an immense institution comprising ninety well separated pavilions. These vary in size in accordance with the uses for which they are intended. They are built of brick, plainly but substantially, and contain all the most modern improvements. The

situation upon an elevated plateau of ground insures a plentiful supply of fresh air. This, with the isolation of cases which the pavilion system will permit, cannot fail to influence beneficially the mortality rate. There will be in all over two thousand beds, of which eleven hundred are now occupied.

Very sincerely, JOHN PARMENTER.

Society Proceedings.

NEW YORK STATE MEDICAL ASSOCIATION—FOURTH DISTRICT BRANCH.

The fourth annual meeting of the Branch was held at the Genesee, Tuesday, May 8, 1888. The meeting was called to order at 10.30 A. M., by President Cronyn.

After the reading of the minutes of the meeting of the Executive Committee, by the Secretary, and the report of the Committee of Arrangements, by Dr. A. A. Hubbell, the President stated that owing to his recent illness he had been unable to prepare the annual address of the President, which was the next thing in order, but in place of that he would make a few remarks upon a subject in which he was greatly interested, and which he would like to call to the attention of the members of the Association, because of the prevalence of the disease and the fatality attached to it. He referred to diphtheria, and wished to speak especially with reference to local applications in its treatment. He wished to enter a most solemn protest against confining treatment to local applications of any kind. He referred to the investigations of Prof. Oertel who found that after death all the tissues—particularly the heart—were softened, showing that diphtheria is not a local disease. He had an opportunity to study the disease in his own person. In the way of medication he has found chlorate of potash, tincture of muriate of iron and muriate of ammonia in good doses,—not small doses,—in glycerine and water, the best, combined with nutrition and stimulation. The investigations of Oertel indicate that it is a constitutional disease *ab initio.*

Dr. Perry inquired if Dr. Cronyn used alcoholic stimulants.

Dr. Cronyn replied that he did, but not at the beginning. He did not use mercury at all.

The Treasurer presented his annual report, showing a balance in the treasury of $16.73.

The Committee of Arrangements reported that they had decided to levy an assessment of fifty cents per member to pay the annual expenses.

The following papers were presented and discussed: "Psychical Rearch," Judson B. Andrews, M. D.; "Diphtheritic Paralysis," C. H. Woodward, M. D.; "Forced Respiration," George E. Fell, M. D.; "Removal of Iron from the Interior of the Eye by Electro-Magnet," A. A. Hubbell, M. D.

Upon motion of Dr. Hubbell, the Executive Committee was continued another year.

Adjourned.

WM. H. THORNTON, *Secretary.*

Book Reviews.

A PRACTICAL TREATISE ON DISEASES OF THE SKIN. By James Nevins Hyde, A. M., M. D.; 2d Edition, revised and enlarged. Pp. 676. Philadelphia: Lea Bros. & Co. 1888.

There is no clearer nor more succinct teacher of dermatology in this country than Prof. Hyde of Chicago, and this second edition of his treatise is, like his clinical instruction, admirably arranged, concise in style, attractive in diction, and strikingly practical throughout. The chapter on General Symptomatology is a model in its way; no clearer descriptions of the various primary and consecutive leisons of the skin are to be met with anywhere. Those on General Diagnosis and Therapeutics are also worthy of careful study. The classification adopted by the author is that adopted and subsequently revised by the American Dermatological Association, and is based upon Hebra's. While not denying the eminent propriety of considering such diseases as erysipelas and malignant pustule in a text-book of dermatology, we should certainly have to deny that this was their proper place in a general nosological list. Speaking from purely technical grounds, also, we should say that their proper place, with several others, was under the head of vegetable parasitic affections. But with the minutiæ of the book we cannot deal here. Dr. Hyde has shown himself a comprehensive reader of the latest

literature, and has incorporated into this edition about all that has found favor in his eyes of that which the past years have brought forth. It certainly should be a strong point in a book's favor that new editions are published as often as advances in its department make it advisable. The prescriptions and formulæ are given in both systems. Text and illustrations are good, and colored plates of rare cases lend additional attractions. Altogether it is a work exactly fitted to the needs of a general practitioner, and no one will make a mistake in purchasing it.

NASAL POLYPUS WITH NEURALGIA, HAY FEVER AND ASTHMA, IN RELATION TO ETHMOIDITIS. By Edward Woakes, M. D. Philadelphia: Blakiston, Son & Co. Buffalo: Peter Paul & Bro.

In this little volume the author farther elaborates his theories, communicated in a previous work, as to the vaso-motor influences at play in the production of disease of various parts of the air-passages. Much of it, though ingenious and ingeniously defended by analogy to certain physiological experiments, must remain an open question of comparatively little importance. The essential feature of the book is the description of a heretofore but little recognized diseased condition of the middle turbinate and adjacent parts of the ethmoid, with a theory as to its pathology. The appearances described, and the clinical relations reported, are of much interest; but the theory of the origin of polypus, and the name, "Necrosing ethmoiditis," for the diseased state, seem not to be well chosen. The pathology is based upon too slight a foundation of examination and experiment for the ready acceptance of the large superstructure of theory. The reported macroscopical and microscopical appearances do not bear out the theory of a progressive necrosis. The portion of the work concerning the reflexes in asthma and other neuroses is not new, though well considered. The same applies to the treatment suggested and the methods described. We cannot but suspect that treatment will not always be responded to so absolutely and completely as in the cases reported. Such constantly accurate correlation between pathology, therapeutics and health are not for our delectation as yet, we fear. Nevertheless, the book is thoughtful and instructive, however the reader may agree with some of the author's conclusions. H.

THE MODERN TREATMENT OF PLEURISY AND PNEUMONIA. By G. M. Garland, M. D., Instructor in Clinical Medicine, Harvard Medical School, etc. Pp. 108. Detroit: Geo. S. Davis. 1888. Paper 25c.

This little volume is No. 7 of the Physicians' Leisure Library for 1888, and is an admirable resumè of the cream of all that is known of these diseases. Pleurisy—so easily diagnosed and yet so frequently *not* detected—is carefully described in its many phases and forms, in both adults and children, with the modern treatment. Considerable space is given to the results of pleurisy and the operations best suited to bring about recovery. So thoracentesis, pleurotomy and thoracoplasty are separately described, with the indications for each; the technique of the operations and the precautions to be taken. Pneumonia is defined and treated as a local and infectious parasitic and contagious disease, whose infectious processes, however, are fortunately only rarely developed. Bacteriological investigations are given as verifying the correctness of the definition. A cold, the author says, can no more produce pneumonia than it can small-pox or typhoid. The merits and demerits of the half dozen different methods of treatment in vogue are dwelt upon, giving indications for certain lines of treatment and the exhibition of certain drugs. In conclusion the author says, frankly enough, indeed, that no one drug can as yet claim precedence in antagonizing pneumonia; that it is a disease "peculiarly adapted to mislead in regard to therapeutical data"; that many of the high enconiums bestowed upon drugs and methods of treatment are simply "enthusiastic" announcements of happy coincidences, and that the treatment of an ordinary case of pneumonia is very similar to that of a case of typhoid.

THE NEW YORK MEDICAL JOURNAL VISITING LIST AND COMPLETE POCKET ACCOUNT-BOOK. Prepared by Charles H. Shears, M. D. New York: Appleton & Co.

This List is based upon an entirely new plan, the result of an effort to do away with the defective method of keeping accounts found in all visiting-lists hitherto published. Each page is arranged for the accounts of three patients, to the number of thirty-one visits each, which may have been made during a current month or may extend over a number of months, according to the frequency of the

visits. By this means the necessity for writing a patient's name at each visit, and for searching through several closely-written pages to ascertain how many visits have been made, is obviated. Arrangement is made for 375 accounts, which can be commenced at any time.

BOOKS RECEIVED.

From P. Blakiston & Son, Philadelphia, through Peter Paul & Bro.:

Diseases of the Nervous System: W. R. GOWERS.
Hysteria and Brain Tumor: M. PUTNAM-JACOBI.
Theine: THOS. J. MAYS.
Examination of Urine: JAMES TYSON.
Compend of Physiology: A. P. BRUBAKER.
Emergencies: CHAS. W. DULLES.
Inebriety: NORMAN KERR.

From Geo. S. Davis, Detroit:

Pleurisy and Pneumonia: G. M. GARLAND.
Infectious Diseases: KARL LIEBERMEISTER.

From E. B. Treat, New York:

Photo. Illustrations of Skin Diseases: Parts V., VI.

From Wm. Wood & Co., New York, through J. H. Matteson:

Atlas of Venereal and Skin Diseases. Part IV. P. A. MORROW.

DIGESTIVE DISORDERS OF CHILDHOOD.—The value of Listerine in those digestive disorders of childhood which lead to what is commonly called cholera infantum, can scarcely be over-rated. A teaspoonful of Listerine administered per orem has been known to dissipate the most alarming symptoms, cutting short the attack and apparently saving life. A good way is to begin something like this: Calomel and chlorate of potash, each one grain, to be rubbed well together, and to be divided into ten powders; one to be given every five minutes until vomiting ceases and the nature of the stools have been changed. Then commence and give teaspoonful doses of Listerine every four hours until convalescence.—*Progress.*

WE call the attention of our readers to the offer made by McKesson & Robbins to send a monograph on each of the various new remedies mentioned in their advertisement. As references to the originals are always given in those little papers, physicians should write and get them, as they will be found handy for reference.

The Medical Press
of Western New York.

Vol. III. JULY, 1888. No. 7.

THE RHEUMATIC ELEMENT IN THROAT DISEASE.

By F. W. Hinkel, A. M., M. D.
Clinical Professor of Laryngology, Med. Dept., Univ. of Buffalo.

[Read before The Medical Club, June 6, 1888.]

It is the purpose of the following paper to try to express intelligibly to the club some impressions growing upon the writer, to the effect that certain of the manifold forms of catarrhal disease of the upper air passages are intimately correlated with general rheumatic or lithic states of the system. I have hesitated about the use of the adjective rheumatic in this connection, but on the whole think it expresses the idea as clearly as I can formulate it. Rheumatism, gout and lithiasis, are terms covering, more or less widely, conditions and symptoms now generally regarded as having much the same pathogenesis. Of the three, lithiasis, perhaps, best describes the conditions of defective metabolism and excretion in the ultimate cells that lie behind catarrhal manifestations in many cases, I believe; but my attention has been sharply drawn of late to cases presenting throat lesions that from history and results of treatment are distinctly rheumatic, and it is from that somewhat firmer clinical ground that I prefer to begin our consideration of the subject.

There are certain conditions of the tonsils and pharynx that are attributed in laryngological literature to rheumatic poison. I refer, of course, to parenchymatous tonsilitis and rheumatic pharyngitis. Quinsy, involving as it does one of the ductless glands, presupposing and evidencing a primary diseased state of the circulating tissue, the blood, is hardly to be classed under the catarrhs, so we will not consider it—the less as its intimate association with rheumatic states now receives recognition. However, I have in mind a case exemplifying so well this relationship that I will briefly narrate it.

J. C. H. was seen at his home on September 16, 1887, suffering from severe quinsy of the left side. After third day pus had formed and was evacuated. There was nothing noteworthy in the case except its severity. About ten days after patient called upon me and reported an attack of articular rheumatism, that came on several days after the quinsy had subsided, affecting the anklejoints particularly. It had subsided when I saw him. He was markedly lithæmic, and I endeavored to impress upon him the necessity of a radical change in his diet and hygiene. About one month from this time he had what was reported to me as an apoplectiform attack, from which he has not yet entirely recovered.

Rheumatic pharyngitis, with the distinguishing symptoms of absence of much inflammation of the mucous membrane, and much more pronounced pain during deglution of saliva or small quantities of water than during the passage of a bolus of food, is rare, and needs no extended comment. Let me suggest in passing the additional therapeutic evidence of the beneficial effects of salicylic acid, antipyrin and berzrate of soda, etc., in these cases.

Acute follicular or lacunar tonsilitis, when frequently recurring, is found often associated with muscular or arthritic rheumatism. Of this my case record shows many examples. It is most frequent at the season when rheumatic attacks are most common. It is associated always in my experience with acute acid dyspepsia. Strawberries and raspberries appear to favor its occurrence. I find sharp alkaline and antipyretic general treatment the most satisfactory.

There is a form of sore throat, to which my attention has been drawn particularly during the past spring. There is a sudden onset of odynphagia, accompanied by slight rise of temperature. The particularly painful point is located by the patient's sensations behind the cricoid cartilage, or external to the superior horns of the thyroid, or directly in the back wall of the oropharynx. Inspection shows a somewhat patchy congestion of the mucous membrane, often about enlarged and inflamed follicles, though not invariably. There is frequently a history of attacks of muscular rheumatism from time to time, perhaps torticollis, preceding the sore throat. The tongue is furred and white, the stomach acid. Very prompt relief is given by alkaline gargles, as hot as can be borne, at short

intervals. I use guaiacum, also, as a hot gargle, as a rule. Alkalies internally, in repeated small doses, well diluted, and calomel where indicated, complete the therapeusis I have found most availing. I think the vogue obtained by chlorate of potash amongst the laity is due to its influence in similar cases where ordinary astringents have failed. The larynx is affected separately at times in much the same way, with, of course, different local symptoms. There is violent, and often constant, explosive cough, dry and at times painful. There is the same patchy congestion, especially of the epiglottis. I recall one case in which there was pain on one side in cough and speech, and less marked in deglutition, in which I found deep congestion and slight swelling about one crico-arytenoid articulation. Alkaline treatment, local and general, relieved it in a few hours. And let me mention here, as it occurs to me, that the localization of the pain by the patient is deceptive and not to be relied upon. For example, an inflamed follicle, or a foreign body, situated in the region of the tonsil or even above the soft palate, may be complained of by the patient as external to the thyroid cartilage, or even below the anterior commissure of the vocal bands.

The forms of throat disease we have now briefly considered have been illustrated repeatedly in my practice, some examples of which I have cited, and I think the *post hoc ergo propter hoc* argument from the results of therapeusis bears out the theory that they are rheumatic in origin and character. I desire to accentuate this the more as the pendulum of therapeutic fashion has swung in laryngology to the extreme of localization, and in cases of the character noted the local symptoms certainly obtrude themselves with great prominence.

There comes now for considerarion, under the general scope of our subject, a class of diseases of the upper air passages, in which positivism is much out of place, and yet about which I feel constrained to express an opinion. I allude to nasal catarrh, especially naso-pharyngeal, or as our cousins call it, "post-nasal," catarrh; that form of catarrh described in the popular use of the words. The etiological theories of this ubiquitous affection are as many as the special devices contrived of late to combat it on surgical grounds. The principal accepted theories are summed up in Mackenzie's

classical treatise, and still better, in my opinion, in the last edition of Beverly Robinson's book. John H. Mackenzie, in Volume IV. of the "Reference Handbook of the Medical Sciences," discusses the causation of catarrhs of the upper air passages with his usual exhaustiveness and erudition. The latter Mackenzie mentions the influence of the diatheses, including the gouty, as formerly believed to have occasionally an influence in the development of diseases of this class, but mentions it as a point of minor importance. The other authorities do not mention it, though Beverly Robinson dwells much on the influence of the "hepatic diatheses." I am acquiring confidence in the belief that lithiasis plays a larger role in the development of many forms of catarrh than it receives credit for. That this point has been practically overlooked in the enormous increase in laryngological research in recent years I attribute to the localization of that research, brought about by the magnificent results achieved by rhinological surgery and to the rapid addition to our instruments of precision and convenience, due much to American ingenuity.

Theories of mechanical and reflex functional derangements, the magnificent results of treatment in many cases on the lines of these theories, the facility given to nasal surgery by the discovery of the local anæsthetic properties of cocaine, and the more immediately telling effects upon the lay mind of surgery over medication and hygiene—all have contributed to the apotheosis of the saw, the trephine, the cautery, and the snare.

The curious correlation of nervous excitability with the most annoying cases of naso-pharyngeal catarrh must leave impressions on all who have had experience. The almost constant association of digestive derangement, especially fermentative dyspepsia; the inability to digest starches and sugars; the spontaneous improvement when the diet is regulated with this point in view, or when diastatic assistants are administered—these, added to the cases of undoubted rheumatic impairment of throat health, have for some time past been suggesting more and more strongly to me the influence of the lithæmic condition as a factor to be considered and treated, as well as the local lesions or deformities with their more immediate and undoubted injurious influences.

While accepting heartily the theories advanced of the etiological influence of nasal stenosis, variability of climate, vaso-motor reflex disturbance, and hereditary neuropathic tendencies, yet I would urge upon your consideration in the treatment of these cases in addition, attention to the element above alluded to and in selected cases persistent anti-lithic medication; and I believe the measure of success in these admittedly obstinate affections will be increased.

CONCERNING THE ETIOLOGY OF CANCER.

BY H. G. MATZINGER, M. D.
Buffalo, N. Y.

[Read before the Physicians' Club, March 23, 1888.]

Everyone who has had occasion to look up this subject must have been struck with the lamentable paucity and speculative nature of its literature. Surgeons dismiss it with the merest mention, and pathologists either confess their ignorance and cast a shadow of doubt on the theories of others, or elaborately discuss some ingenious theory of their own and, withal, establish nothing. In the meantime cancer and cancerous disease are increasing alarmingly in proportion to all other known diseases, and worse than that, statistics show conclusively that the number of cases reported is increasing altogether out of proportion to the numerical increase of population in all civilized countries—that, indeed, it is almost doubled in some.

This status of things in itself is the best possible reason for bringing the subject before the club for discussion. An attempt will be made to mention briefly the general observation and special theories on the etiology of cancer up to the recent discoveries and experiments of Scheurlen, published last December, and then to draw some reasonable conclusions.

It has frequently been observed that the prevalence of cancer is greater in certain parts of certain countries than in others, and some significance has been attached to it. So, for instance, Dr. Crisp, of London, says that there are cancer fields in England where the disease predominates to an inordinate extent, and that those fields are associated with certain geological peculiarities. He finds that where

the primative rocks and earlier formations exist cancer is comparatively rare, whereas, as you descend the river courses and get into the tertiary formations, and especially into low alluvia lands subject to overflowing, you find cancer developed to a greater extent. This is somewhat at variance with the more recent observations made by Dr. Billings of the U. S. Army, who finds that the mortality from cancer, in the United States, is proportionately greatest in the New England States, somewhat less in New York and Pennsylvania, and that it causes the smallest proportion of deaths in the Mississippi valley and the south generally. He explains this in the following manner: Cancer is a disease, the mortality from which steadily increases with advanced age; hence it produces a larger proportion of deaths in those localities which have the greatest proportion of population living at advanced ages, and in the United States these localities are the New England States. A large proportion of deaths from cancer may thus indicate that the locality in which it occurs is a healthy and long settled one. Another explanation, he says, is found in the relation of race to the tendency to death from this disease. Cancer is more than twice as prevalent among whites as among the colored in the same localities, and, again, it appears to cause a much higher proportion of deaths among persons of Irish and German parentage than it does among the rest of the white population. It follows that where they make up the larger proportion of the population there will be more cancer, and *vice versa*, and that locality has only a secondary, if, indeed, *any*, influence on causation of the disease.

The susceptibility of races is varied, and it would almost seem as though it increased in direct ratio with the advance of civilization. So it was found by Drs. Fraue and Bartle, who for many years made observations in Asia Minor, Syria, Palestine, Mesopotamia, Egypt and Nubia, that in these countries cancer is almost unknown. Neither Livingston nor Lontre found cancer among *any* of the African races, and the American Indians are peculiarly free from it, while on the other hand it abounds in Europe, Great Britain and the United States. It has been found that animals, naturally possessing little or no tendency to this disease, develop it when domesticated and deprived of their freedom, and it is a quite general

observation that the disease is most prevalent among people who live generously, particularly among those whose habits are luxurious and who live freely upon highly seasoned nitrogenous food. Modes of living and diet seem, therefore, to have a positive relation of no small significance to cancer formation.

For a time it was considered that a predominantly vegetable diet favored the development of cancer, but it has not been demonstrated; on the contrary, careful observation has shown that among animals the herbivora are less liable to cancer formation than the flesh-eating animals, while they are more prone to tubercular processes. This also holds good for birds, cancer being more common among birds of prey. Dr. Churchill, of London, seems to find in this what he thinks a positive proof for his theory of the relation of cancer to tuberculosis; namely, that cancer is due to a condition of plus phosphide elements in the system, while tuberculosis is due to a condition of minus phosphide elements. He says a vegetable diet contains very little of those elements compared to a mixed or nitrogenous diet; that the phosphide element, owing to its great affinity for oxygen and its high calorific capacity, is probably the initiator of the metamorphoses and molecular changes which constitute in animals the essential conditions of all higher manifestations of life, and that its presence, therefore, determines cell growth. By elaborate experiments he shows that tuberculosis seems to develop by preference in persons whose systems are deficient in oxydizable phosphides, and apparently proves it with the gratifying results obtained by substituting them; while on the other hand he finds, with other investigators, that there is a surprising amount of phosphorized matter in cancers, and arrives at the following conclusions: In youth, when the tissues are growing very rapidly and the food does not supply sufficient phosphides, tuberculosis develops, whereas, in adult age, when the tissues have ceased growing actively, therefore require less phosphides, a highly nitrogenous diet containing much of them will stimulate cell growth which now must be abnormal, and thus cancers originate.

This is a very pretty theory, and Dr. Churchill is so seriously convinced of its truth that, in an open letter to the Registrar General on "The Increase of Cancer in England," he makes the

remarkable confession, that while the proper use of his discovery (the phosphides) is undoubtedly the cause of the gradual decrease of consumption, its misuse is, to a great extent, the cause of the deplorable increase in cancer, and begs that he may use his influence to bring about a proper use of the phosphides, assuring him that they will only be useful in young and recent cases, but must prove disastrous in most of the older cases, and especially when given promiscuously as a general tonic.

Rokitansky believed that there exists a certain antagonism between the two diseases; but hospital statistics prove that this is a mistake and that they are, on the contrary, strikingly correlated. So the reports of the Middlesex Hospital (England), *e. g.*, show that in 316 cancerous families a history of phthisis was found in 151, or 47.7 per cent., and a history of both cancer and phthisis in eighteen out of 134 cases of breast cancer, and fourteen of 129 cases of uterine cancer. In twenty-seven out of 166 *post-mortems* the two diseases were found associated. In the majority of cases, however, phthisis occurs early in life and cancer late. Both are intimately connected with some great change in the system, as puberty, the menopause and the decline of life, and seem to be favored by the same constitutional predisposition. But cancer as such is not necessarily hereditary; at any rate not as distinctly so as phthisis. Dr. Nancrede believes that the so-called inheritance of cancer consists in a tendency to relatively earlier atrophy of the connective tissue and the transmission from father to son of a peculiar readiness to respond to irritants of the glandular elements.

Dr. Snow, of the London Cancer Hospital, says that hereditary tendency as a predisposing cause to cancer (especially mammary and uterine) is almost valueless, if not entirely so, and in practical diagnosis should altogether be ignored as misleading, and adds that as direct and immediate causes of cancer mental trouble and hard work are very potent agents and exert more influence than any other antecedent within our present knowledge. Dr. Willard Parker also states that there are the strongest physiological reasons for believing that great mental depression, particularly grief, induce a predisposition to cancer or become the exciting cause where the disease has already been acquired. Neuras-

thenia and melancholia are also considered predisposing causes by him.

The theory of the purely nervous origin of cancers, advocated by Van der Kolk, Lang and others, is, however, a fanciful one, and almost too speculative for serious consideration. Still it is conceivable that disturbances of the trophic centers might change the nutrition of certain parts sufficiently to produce pathological processes and possibly cancerous disease, or that reflex disturbances might eventually bring about such results, but it seems very improbable.

Another equally, perhaps more unintelligible theory is that cancer originates spontaneously or idiopathically, and yet it was at one time strongly advocated by such men as Rindfleisch, Stricker, Nancrede and others. It is, to say the very least, very unscientific to say that a thing comes about without a cause, and in this age no one will accept such an explanation.

The dyscrasia theory, favored by Rokitansky, Billroth, and formerly also by Paget, likewise fails to explain the causation of cancer, the dyscrasia being rather the effect than the cause of cancerous processes. The term is a vague one, really conveying no definite idea, and, as has been aptly said, is at best merely a cloak for ignorance. To what absurdities this theory may lead and has led, the following will be a fair sample. Regarding cancer as caused by a dyscrasia, Simon, in his text-book of pathology, says that he regards a cancer as a gland, a newly formed secretory organ, whose function it is to collect the morbid juices and effete materials of the system, as the kidney does urea, and that when it ulcerates it becomes a true excretory organ. Of course, holding this view he could not consistently advocate removal of cancerous masses.

Cohnheim's embryonal theory of the origin of cancers, supported by Thiersch, Waldeyer, Lücke and others, for a time enjoyed great popularity. It was jumped at, like the straw by a drowning man, and hailed as a welcome solution of this very complex problem. But it has of late lost adherents. Moreover, how can it be explained that they may lie dormant for years and possibly never develop, or suddenly begin to proliferate very rapidly and form cancers or other tumors? Though this theory can be made to account very beautifully for some tumors, the teratomata, for instance, it

certainly falls very far short of explaining in any satisfactory way the origin of cancers.

The general observations mentioned thus far establish nothing more definite than that a certain age or abnormal senility of tissues is apparently associated with and constitutes a predisposition to cancer, and that this tendency to early and abnormal degeneration of tissues may be *acquired or inherited.* The theories mentioned absolutely fail to explain the direct causation, and are too hypothetical to have enjoyed a more than temporary support.

Besides these there is one more which is at present generally accepted by pathologists, and finds its ablest support in Virchow, Wagner, Birch-Hirshfeld, Cornil and Ranvier, Woodward, Formad and others. This is the predisposition and inflammation theory. The argument is that cancer originates as an ordinary local inflammation, usually accompanied with all the signs of inflammation: that, however, owing to a peculiar condition of the tissues, the products are not the same and are not absorbed, so that it becomes a chronic affair, causing overgrowth of the cells of which the tissue involved is built, and producing a cancer on the one hand, or some other tumor on the other, as the case may be. This theory is backed by the fact that a large majority of cases give a history of either direct traumatism or irritation, sometimes followed by decidedly acute symptoms, sometimes not. But there is a flaw in this theory, for even though it does seem and, perhaps, is a fact, that cancers usually begin as an inflammation, what determines the ultimate outcome, on the one hand of resolution, on the other of cancer formation? For it is certain that even in subjects who have the predisposition, not every blow or bruise or inflammation results in a cancer. And how does this theory account for the many cancers which originate insidiously, without a history of injury or inflammation, or at any time showing any symptoms of it, and that are only detected when by their size they become noticeable or by the pain they cause. Nor does this theory throw any light on the fact that in some countries cancers are almost unknown, though it must be admitted that contusions, injuries, acute and chronic inflammatory processes, with diminished resisting power on the part of the tissues, cannot be wholly wanting in these localities.

Then, again, how can this theory account for the secondary infections, or, indeed, for the infectious nature of this disease? Recent literature is full of well authenticated reports of cases demonstrating, beyond doubt, that cancer is infectious. Transplantation of cancer masses, inoculation with cancer juice, and even prolonged contact with cancerous tissues, have been followed by cancer formation, and we are forced to the conclusion that the disease must depend, at least for its direct cause, on some specific virus, and that it is a specific inflammation not unlike that of the infective granulomata, which are known to be caused by specific germs, and from which cancer differs in no essential particular. Many observers and pathologists have hinted and implied that they believe in the infectious nature of the disease; some have all but committed themselves to this belief. Ever since bacteria have been found indisputably connected with, if not absolutely accountable for, the etiology of infectious and other diseases, pathologists have been making careful experiments with the view of finding some germ which might explain the etiology of cancer. Among them Dr. Hall, of New York, in 1885, announced in an article in *The Annals of Surgery* that he successfully stained bacilli in cancer tissues. In 1881 Dr. G. Rappin, of Nantes, succeeded in growing a peculiar diplococcus from epitheliomata. Neither, however, made inoculation experiments, nor claimed specific properties for the germ they discovered, but left the reader to infer almost as much. Even conservative venerable Paget, in his Morton lecture on "Cancer and Cancerous Disease," delivered last November, says: "I believe that micro-parasites, or substances produced by them, will be found in essential relation to cancer and cancerous disease." His entire line of argument tends in that direction, and he really all-but describes and names a special cancer germ. In the following month Scheurlen, of Berlin, announced his discovery of the bacillus of cancer. His methods and experiments have been so generally published that everyone must be familiar with them, and they need only be briefly mentioned here. With antiseptic precautions inoculations from the juice of ten mammary cancers were made on sterilized pleuritic fluid and placed in the incubator. In a few days a yellowish brown surface growth was found in a good proportion of the tubes. This consisted of a short

bacillus, about 1.5μ to 2.5μ in length, and which could be readily stained by all the usual methods. The spores were more difficult to stain.

From the pure cultures of this bacillus he inoculated, with proper precautions, six bitches, by injecting some of the material into the hinder mammary gland. In fourteen days a soft swelling had formed in the gland, about the size of a walnut, which later became reduced in size and distinctly circumscribed. Two dogs were killed on the twenty-eighth and thirtieth day respectively, and in both was found a solid mass of the size of a bean, in which the microscope showed a collection of distinctly epithelioid cells, and in which both the spores could be distinctly seen. Pure cultures were again obtained from these specimens and corresponded exactly with the original one. The other four dogs were not killed, in order that further developments might be observed. From the constant occurence of the spores in cancers, and the fact that by cultivation the bacillus always can be obtained from them, Scheurlen concludes that it must be the cause of cancer.

There is every reason for believing that this bacillus stands in some causative relation to cancer formation, and, as there is certainly no other way of accounting for it so reasonable and supported by as positive proof, it must be accepted as *the* cause of cancer.

This bacillus is easily stained by almost all the methods in the cancer milk or juice; the spores are difficult to stain, but can be recognized in the unstained specimen as glistening greenish ovoid bodies. Though I have repeatedly stained sections of cancers in various ways I have been unable to stain the bacillus in them, which is the general experience. In Dr. Park's admirably equipped laboratory I have also made inoculations on serum, agar-agar and gelatine, from several specimens of cancer, but for some reason or other failed to grow the bacillus; in fact, failed to get any growth whatever. But I did succeed in growing a diplococcus from an epithelioma of the lip, which corresponds with the one described by Rappin.

CONCLUSIONS.

I. It appears that a predisposition is necessary for the development of cancer, and that the only predisposing cause we are

acquainted with is either inherited or acquired senility of tissues, which may be general or local.

II. That this condition is favored and hastened by anxiety, distress, overwork, excesses of all kinds, syphilis, gout and advancing age.

III. That if offspring are produced after that state has been developed, such offspring may and very likely do inherit a tendency to cancer formation.

IV. That cancer, therefore, need not necessarily be inherited.

V. That cancer formation depends on some specific virus for a direct or exciting cause, and that it is an *infectious disease.*

VI. That the bacillus of Scheurlen, or its products, very likely constitute the specific virus.

VII. That since cancer does not differ materially from any of the infective granulomata, it ought, like these, to be in some degree amenable to internal treatment, both prophylactic and curative.

PSYCHICAL RESEARCH.

BY J. B. ANDREWS, A. M., M. D.
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This term does not apply to the ordinary mental manifestations of persons in health, nor to the abnormal manifestations produced by disease, of which we have such abundant illustrations in insanity. There are, as all know, many mental phenomena which seem inexplicable under either of these conditions, and it is the investigation of these phenomena with which we are concerned. With these I have no personal knowledge, and what I have to say is largely a compilation from the reports of the English and American Societies for "Psychical Research," and from the work of W. Hovey, "Mind Reading and Beyond."

It is now about forty years since the subject of mesmerism was first approached, and under various forms and names this has, from that time to the present, received more or less attention, but without placing the knowledge acquired upon a strictly scientific basis. The same has been the result regarding what may be called supersensuous sensation. The hope that the accumulation of a great number

of incidents might result in the deduction of certain general laws to explain them, has led to the organized effort to collect and collate them. A deep interest has been excited by the labors of the members of these associations, and enough has been discovered to stimulate further research and investigation.

The English society was formed in 1882, and a program for work, sketched by the council, contains the following subjects: An examination of the nature and extent of any influence which may be exerted by one mind upon another, apart from any recognized mode of perception. The study of hypnotism and the forms of so-called mesmerism, with its alleged insensibility to pain. Clairvoyance, and other allied phenomena. The careful investigation of any report resting on strong testimony regarding apparitions at the moment of death or otherwise, or regarding disturbances in houses reputed to be haunted. An inquiry into the various psychical phenomena commonly called spiritual, with an attempt to discover their causes and general laws.

Investigations have resolved themselves into those relating to what is called (1) "thought transference," "mind reading," or telepathy; (2) hypnotism; (3) spiritualism. The utmost care has been taken in all the experiments to avoid every possible source of error, and by the character of the persons engaged to give them the greatest weight.

The subject of telepathy, as it is called, has attracted the most attention from this society, and the investigations have extended during a period of several years. These are presented to the public under the two general heads of experimental and spontaneous. The subjects investigated under experimental telepathy may be broadly grouped under the following heads: 1. Those in which some action is performed where the hands of the operator are in gentle contact with the subject of experiment. 2. Where a similar result is obtained with the hands not in contact. 3. Where a number, name, word or card has been guessed, expressed in speech or writing without contact, and apparently without the possibility of transmission of the idea by the ordinary channels of sensation. 4. Where similar thoughts have simultaneously occurred, or impressions been made in minds more or less removed from each other.

The experiments performed under the conditions mentioned, where there is contact between the individuals, gives very little support to the theory of any proper mind reading, "thought transference," or supersensuous sensation of any kind, for the reason that contact between the operator and the agent gives every opportunity for one to guide and control the other. As Dr. Carpenter remarks, communication is made by unconscious muscular action on the part of one person, and automatically interpreted by the other.

The most familiar illustration of this is found in what is called the Willing game, in which several persons being assembled one leaves the room, and during his absence some object is hidden. Upon the absent one's returning, two persons, who know the hiding place, stand one on either side of him and establish some personal contact with him, one method being to place one finger on the shoulder, while another is for each to place a hand on his body. He walks about the room between the two willers, and generally succeeds in finding the hidden object, being led to it, as careful observation and experiment have proved, by the unconscious involuntary muscular action of his guides; one or the other of them pressing more heavily when the object is on his side, and the finder as involuntarily turning toward that side. A large number of experiments were made which proved the truth of this, though some of them seemed to involve something higher and more in the nature of mind reading. Of a total of 130 trials with one subject, of which many samples are given in their report, about 100 were correctly performed. After prolonged research on this subject the conclusion was reached, however, that all the results witnessed were capable of explanation by the hypothesis of unconscious perception of unconscious muscular indication.

We now come to the second class, where actions are performed without contact with the person willing. Under this head the committee report that involuntary guidance, by the eyes, of the rest of the party, or other indication of an almost imperceptible character, are swiftly and probably unconsciously interpreted by the guesser, leading him, hesitatingly, to do what is being willed. The doubtful experimentation of the best results obtained in this group compel the committee, who are determined never to give the phenomena, as

such, the benefit of any doubt, to attach comparatively little importance to them.

The third group covers cases where some number, word or card has been guessed apparently without any of the ordinary means of communication between the willer and the guesser. In experiments of this character collusion between two persons is, of course, the greatest error to be avoided. This is shown by the skill which has been attained by the use of signals by such operators as Bishop, Heller and Mr. Heriot, who are known to have formulated codes, by the use of which they are capable of performing most wonderful results is guessing numbers, cards, articles and the like. This can easily be done by means of Morse's code as used in telegraphy, soundless movement of the lips, while the faintest accent of approval or disapproval or comment made gives a hint as to whether the effort is tending in the right direction. The committee, however, discovered certain persons who seemed to be free from any of the forementioned possible means of communication or of error, and they have given a long series of experiments in which the results were so generally correct as to preclude the possibility of their being mere guesses, when performed under the conditions instituted by them, and point naturally to some form of mind reading or thought transference.

In the performance of these experiments it was important that the individual suggesting the name or number should keep his mind intently fixed upon it to the exclusion of everything else. Of a series of 382 trials, 202 were successes. This is far in excess of any possible coincidence or mere guessing, as the law of probability shows that about seven and one-third cases would be correct.

The report gives a series of experiments illustrating reproduction of drawings, which were conducted as follows: The percipient is seated blindfold at a table, and paper and pencil are within his reach, and a member of the committee seated by his side. Another member leaves the room, and outside the door draws some figure at random. The third person, who has been seated at the side of the percipient, is called out and the door closed, and the drawing is held before him for a few seconds until its impression is stamped upon his mind. He then closes his eyes, is led back into the room, and

is placed, standing or sitting, behind the percipient at a distance of some two feet. A brief period of intense mental concentration on the part of the agent now follows. Presently the percipient takes up the pencil amidst the unbroken and absolute silence of all persons, and attempts to reproduce the impression he has gained from the person sitting or standing behind him who has had a view of the object drawn. After the percipient has made the drawing the original drawing is brought into the room and compared with the reproduction. A large number of drawings and reproductions are presented in the report. It will be noticed that these are crucial experiments, in which four or five recognized roadways of knowledge are excluded by the very conditions of the experiment. There remains nothing but the sense of hearing, and by this sense nothing was obtained by the persons in the room, and the conclusion is, therefore, proper that the percipient derived no knowledge from it. Of the whole twenty-two original drawings seventeen of them were sufficiently accurate to show that by some means the idea was correctly conveyed.

Further experiments were made in regard to the transference of tastes. These were made by the selection of about twenty strongly tasting substances, enclosed in small bundles or parcels similar one to another, and kept out of the range of vision of the subject, who is blindfolded so that no grimaces made by the taster could be seen. The taster lightly places a hand upon one shoulder or the hands of the precipient. Correct answers were given to eight out of seventeen experiments. Several of these were hardly fair, as substances were used with very little taste after the mouth had become impregnated with strong tasting articles.

We may now take up the fourth head, which comprises cases where similar thoughts have simultaneously occurred, or impressions been made upon minds far apart without any known means of communication. These are properly classified under the second branch, or spontaneous telepathy, as distinguished from experimental, which we have before described.

The English Society, through their committee, have presented a large amount of material bearing upon this subject, contained in two volumes of some six hundred pages each, entitled, "Phantasms

of the Living." In this work there are given more than 700 cases, which, it is claimed, illustrate spontaneous telepathy, or the ability of one mind to impress or to be impressed by another mind otherwise than through the recognized channels of sense.

These illustrations are divided into two great families. The first division comprises those in which a person seems to see, hear or feel something which he instinctively refers to the outer world. In the second division the impression is either a mental image, an emotion, or a blind impulse toward some sort of action. Each of these divisions is further represented in sleeping as well as in waking life, so that dreams form a comprehensive class of their own.

There is also another class of cases which are spoken of as being on the borderland between complete sleep and normal wakefulness. The book is filled with cases of the various classes referred to. It will be interesting to read some of these, and to see what is the basis of telepathy or thought transference. One of the most simple types is that of the transference of pain, of which a very interesting account is given.

The wife of a gentleman woke with a start, feeling that she had received a hard blow on her mouth and a distinct sense that it had been cut and was bleeding under the upper lip. She seized her pocket handkerchief, held it to the part, sat up in bed, and after a few seconds, having removed it, was astonished not to see any blood, and then realized that it was impossible that anything could have struck her, as she lay fast asleep in bed, and hence thought it was only a dream. She looked at her watch and found it was seven o'clock. Finding her husband was not in the room she concluded he must have gone out for an early sail, and then fell asleep. At breakfast, at half-past nine, her husband came in rather late, and she noticed that he sat farther away from her then usual, and then put his pocket handkerchief furtively up to his lip in the way she had done. She said, "Why are you doing that?" and added, "I know you have hurt yourself, and I will tell you why afterwards." He replied, "When I was sailing a sudden squall came and threw the tiller around. It struck me a bad blow in the mouth under the upper lip. It has been bleeding a good deal and won't stop." She then said, "Have you any idea what o'clock it was when it happened? He answered, "It

must have been about seven o'clock." She then told him what had happened to her, much to his surprise and those who were with her at breakfast.

The following is an account of the transference of an idea, and is also of a clairvoyant character. It occurred to a minister of the Wesleyan Church at Aberdeen, the Rev. John Drake. Miss Wilson the daughter of one of the office bearers of his church, sailed for India to join a missionary to whom she was engaged to be married. Mr. Drake one morning came down to her father's place of business and said, "Mr. Wilson, I am happy to be able to inform you that Jessie had a pleasant voyage and is now safely arrived in India." He replied, "How do you know that, Mr. Drake?" Mr. Drake replied, "I saw it." "But," said Mr. Wilson, "It cannot be, for it is a fortnight too soon. The vessel has never made the voyage within a fortnight of the time it is now since Jessie sailed." To this Mr. Drake replied, "Now jot it down in your book that John Drake called this morning and told you that Jessie has arrived in India after a pleasant voyage." The note was made as follows: "Jessia arrived in India the morning of June 5, 1860"; and this turned out to have been literally the case. The ship had fair winds all the way, and made a quicker passage by a fortnight than she ever made before.

Other cases are given which are of a pictorial character, where a scene is as clearly presented to the inward eye as the image of a card or diagram in some of our experimental cases. Still others are presented which illustrate emotional impressions with a certain element of physical discomfort. A large number of cases of dreams are reported in which apparitions have appeared, which have been found, in many instances, to have been remarkable coincidences as to time of the death of friends or persons nearly related to the individual who had the apparition. Many cases are given of an impression of a person being wanted, or an impulse to movement or action of a kind unlikely to have suggested itself in the ordinary course of things. Examples of hallucinations of sight or hearing are also reported.

In collecting these cases, over 700 in number, every effort has been made to verify them and exclude all possible sources of error.

The committee incline to the belief that these cases are illustrative of telepathic phenomena or cases of thought transference. It is evident, however, that it is very difficult to reach any positive conclusion from any number of such instances as may be collected, because of the difficulty of getting at the actual facts. There are here to be met deception, exaggeration, mistaken identity, the possibility of the transfer of knowledge acquired after the fact to the circumstances antedating the fact, and tendency of certain minds to belief in the supernatural.

It is important in all these cases to know that the individuals, to whom these phenomena, apparitions, dreams and the like occurred, were in a state of perfect health, were free from the influence of all kinds of drugs, and from any anxiety regarding the individual to whom the fact related. To illustrate, it would not be strange if a mother, knowing of the serious illness of a child, even far removed from her, and expecting at any time to hear of its death, should, owing to anxiety, imagine that the death occurred at a certain time, and had this happened it might be a mere coincidence; and the probabilities would favor this, as she would be likely to forget the many other times that she had had like impressions. The possibility of error and mistake in regard to such instances and facts are almost without number.

It is now proper that we should speak of the conclusions drawn from the examination of these illustrative cases. We may say here that, as probably has been anticipated by all, no direct explanation has been reached. No one has yet discovered how the interesting and at times apparently wonderful results are attained. Only theories, hypotheses and analogies are indulged in. The fact is noted and accepted that under favorable conditions one person may receive an impression of a thing which is strongly present in the mind, or thought, or sight, or sensorium of another person not in contact with him; but how the transfer takes place, or whether there is any transfer at all, is still undetermined. We are told that we may conceive of nervous energy acting by induction across space as well as by conduction along the nerve vibrations: that the numerous analogies between electricity and nerve stimuli would lead to some such inference. Again, we are told that the brain might be regarded

as the seat of radiant energy, like a glowing or sounding body. In this state the reception of the energy would depend upon the possibility of synchronous vibration in the absorbing body, which, moreover, may be constituted like a sensitive flame in a state of unstable equilibrium, so that a distant mental disturbance might suddenly and profoundly agitate particular minds whilst others might remain quiescent.

Again, we may conceive that for every thought there is a corresponding motion of the particles of the brain, and that these vibrations or molecules may be communicated to an intervening medium and so pass, under certain circumstances, from one brain to another, with a certain simultaneity of impression.

Such is the character of the speculation in regard to the mode of the action of one mind upon another. It is considered improbable that telepathy will ever receive a purely physical explanation; that is, an explanation wholly referable to the properties of matter as they are at present known to us.

This seems to be the position of the English Society of Psychical Research: that there is such a thing as thought transference, both experimental and spontaneous in its character; but the manner in which this transference is accomplished is still the problem to be solved. Nothing but speculation and hypothesis have so far been advanced to account for it.

[TO BE CONTINUED.]

A SOMEWHAT curious item comes from Vienna to the effect that the Anthropological Society of that city is about to disinter and examine the skulls of Beethoven, Glück, Schubert and Mozart, with a view, probably, to finding out where the music came from. These skulls are to be measured, photographed and copied in plaster, and, after due labeling, are to be arranged in the museum like so many ancient music boxes. The queer part of the item is that after stating their intentions, the committee "sincerely regret that we have no exact information as to where Mozart was buried." — *Paris corr. Pharm. Record.*

The Medical Press

OF WESTERN NEW YORK.

Published by THE MEDICAL PRESS ASSOCIATION of Western New York.

EDITED BY

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Subscription price: $2.00 per Annum.

All business communications should be addressed to DR. JULIUS POHLMAN, Business Manager Buffalo Library Building; all others to the Editor, 510 Delaware Avenue.

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BUFFALO, N. Y., JULY, 1888.

THE QUESTION OF THE ADVISABILITY OF EARLY OPERATION FOR CLEFT PALATE.

Fortunately but a very small proportion of children are born with a cleft palate; but the deformity is so conspicuous and disgusting, that one of the first things that a parent begins to consider is, how soon can it be relieved by operation. There has been until very recently a feeling common to all surgeons that it was scarcely worth while to operate for closure of the defect until the child had attained an age of six or seven years. The difficulty of controlling the patient, the necessity for proper nutrition and the difficulty of operating in a cavity so small as the infant's mouth, have all conspired to bring about this state of opinion.

At the congress of German surgeons held last year in Berlin, Prof. Wolff created quite a sensation by advising resort to operation at a much earlier period than has been heretofore considered safe, and by demonstration of several successful cases, giving good reason for his advice. The history of the operation is not without interest. Most of the earliest operations at the beginning of this century were without good results. About 1860, Langenbeck devised new operative methods which he practised with conspicuous success, and in which he has been followed more or less closely by all succeeding operators; still, however, the operation was too often fatal in such young children.

Between 1859 and 1865, Billroth, for instance, operated on seven infants or children; four of the operations were failures; a fifth died, this infant, however, being but two weeks old; the sixth case, one year old, was partially successful; the seventh succeeded after a repetition of the operation. Billroth was the first to combine union of the soft and hard palates in a single operation. Such results naturally discouraged other operators. In 1862, O. Weber operated on an infant two weeks old, making an extensive combined operation; twenty days later the child died. Simon's results during the same decade were hardly different. This rehearsal of failures, while by no means anything more than suggestive, was enough to discourage all such early attempts.

The experiences of the French surgeons, like Ehrmann, of Strasburg, aud Rouge and Trélat, scarcely differed. The secret of so many failures it is not difficult to appreciate when one bears in mind the conditions of marasmus and bad hygienic surroundings in which many of these little patients are found. An adult may, when necessary, be kept on very meagre diet for several days without unpleasant consequences; but disturbance of nutrition in a nursing infant of even a few hours duration may result disastrously. In spite of all these drawbacks, however, Wolff was able to present for the inspection of the surgeons present, five children, the youngest fifteen months old, the oldest, four years, who had successfully undergone the operation. Besides these, he had operated in nine other cases, the youngest ten months old, with marked success, only one requiring a trifling secondary operation. A series of fourteen successful cases, eight when success had been deemed almost impossible, certainly puts this early operative attack in a different aspect from that in which it has been regarded. Wolff further reported two infants, one four weeks, the other eight weeks old, in whom he had made the attempt to close the defect without success. No serious results followed, the parts simply failing to unite.

In this connection, we might add, one of the most important considerations is whether articulation will be improved by closure of the defect, or whether speech will still be thick and difficult to understand. Certainly, correct articulation depends upon normal

contour of the palate arch and normal function of palate muscles. The earlier the arch be restored the better for the patient's speech, but it is probably expecting too much to look for complete restoration of muscles of the parts to their proper function. When, however, we bear in mind the extraordinary adaptability of parts in development from infancy to adult life, we cannot avoid the conclusion, that the earlier the palate be united, the better in this respect will be the result.

These remarks pertain, of course, only to palate defects. The earlier the external defects, like hare lips, are operated upon the less disfigurement will be noticed later in life. Early union of a fissured lip does much, also, to prevent an increase in the relative size of the palatal cleft, if such exist, by exercising a constant but gentle pressure on the upper jaws as the bones of the face enlarge with the infant's growth.

WOUNDS OF THE HEART, WITH SUICIDAL INTENT.

At a recent meeting of the Pathological Section of The Royal Academy of Medicine in Ireland the topic of suicidal wounds of the heart was under discussion, and some extremely interesting cases were reported. Mr. Thomson described the findings in the case of a man, dead when brought to the hospital, who had been arrested as a lunatic while running about the street in his shirt. On examining the body a pin's head was found in the fifth intercostal space. This pin was found to have perforated the pericardium and wounded the anterior wall of the left ventricle. The pericardium contained over a pint of bloody fluid, and there was a small rent in the heart wall a quarter of an inch in diameter, filled by a bloody clot. The ventricle's surface was torn to the extent of nearly an inch; a small vein was wounded; all the internal organs were congested. Mr. Thomson also referred to several other similar cases.

Dr. Foot instanced the case of Admiral Villeneuve, who commanded the French fleet at Trafalgar, was defeated, captured, released, and who then became the victim of melancholia. He studied the region of the heart from anatomical plates, and when he was dead a long needle was discovered sticking in the region of the heart. Dr. Foot also knew of a child into whose heart a needle

went from its mother's dress as she was clasping it to her breast. She immediately ran with the child to the hospital, where the oscillations of the needle caused by the heart's motions were plainly visible. He withdrew the needle and the child had no further trouble.

Mr. Foy mentioned the case of a nobleman of Turin, who, while asleep, was killed by his wife, who drove a needle into his chest at a spot she had ascertained to be over the heart.

In a case of Dr. Moxon's a large pin was seen sticking in the chest of the patient, and moving with each cardiac impulse but causing no apparent trouble. This patient was shown to the Clinical Society. In another case a knitting needle, shot from a toy-pistol, perforated the right ventricle of a boy's heart, went into the auricle, transfixed the valves, and yet the boy lived for a considerable time. In another case a boy lived five weeks after his heart had been pierced by a wooden peg three inches long. In the case of a woman who drove thirty needles into herself death resulted from the wound that one of them made in the superior cava. In yet another case a pin found its way into the thoracic duct and the patient bled to death.

Mr. Frazer said that among the Japanese puncturing the heart was a primitive mode of treatment for the cure of certain affections. When yet a student he had found a needle an inch and a half long in the surface of the heart, covered over with old lymph. Other cases of like interest was also reported.

It will be remembered that Fischer has collected four hundred and fifty-three cases of wounds of the heart, in a large proportion of which death resulted from the filling of the pericardium with blood. But the most remarkable example of injuries above referred to is that alluded to in our editorial, page 366 of the previous year, concerning cardiac surgery. The topic of wounds of the heart is one not generally and sufficiently studied;—presumably because of the infrequency and commonly speedy fatality of such injuries. It nevertheless occurs to us that the surgery of the future will in this domain show some of its most brilliant achievements.

* * *

Dr. Herman Mynter, of Buffalo, has severed his connection with the Buffalo General Hospital to accept the chair of Surgery in

the Medical Department of Niagara University, and an active part in connection with the Sister's Hospital. While tendering him our congratulations upon his new dignity, we assure him that his old colleagues will miss him from his former associations.

Dr. Mickle, formerly Lecturer on Pathology, has been made Professor of Anatomy in the same institution, an appointment well merited.

* * *

THE Steuben County Medical Society held a very well-attended meeting at Bath on June 12. It being the annual meeting the following officers were elected:

President—Dr. E. Winnie, of Hakinsville.
Vice-President—Dr. John Mitchell, of Savona.
Secretary and Treasurer—Dr. W. B. Brown, of Bath.

Correspondence.

LETTER FROM CAIRO.

CAIRO, May, 1888.

Dear Doctor—Since the cholera epidemic in Egypt, five years ago, so little has been heard of medical matters from this part of the world that possibly a few words concerning it may be of some interest. To the student of hygiene the great wonder is that this country is not constantly brought into notice by yearly visitations of almost every kind of epidemics. If the ordinary Egyptians were better Mussulmans they would be cleaner and, therefore, healthier; but the sanitary condition of the common people is, perhaps, as bad as in any part of the entire world. The majority of the men, omiting their ablutions in the mosque, do not care to take a bath elsewhere; the women have little opportunity for one, when all the water must be carried by them from the river, often a great distance; while, as for the children, there is a deep-rooted superstition that they never should be washed at all until they are nine or ten days old, and apparently they receive that attention later only at rare intervals. To show that this position is not in the least exaggerated I may mention that the leading oculist in Alexandria told me he had the greatest

difficulty in making mothers wash properly the eyes of their children suffering from purulent conjunctivitis, and he had seen a child twenty-two days old that had not yet had its first bath.

Such personal habits are naturally accompanied by a neglect of other sanitary precautions. Very few of even the larger towns make any pretention to a system of sewerage. The houses in the villages have no privies, usually being composed simply of a mud hut, with a yard in front some dozen or twenty feet square, enclosed by a wall also of mud. Occasionally there is a cesspool in one corner, but more frequently this is made of a neighboring field. A portion of Cairo is provided with sewers, but one of the English sanitary engineers told me there was no longer any record as to the position or direction of most of these, so if a builder of a house happens to strike one, the more fortunate he is; if not, he digs a cesspool and is content. The mosques, also, should not be omitted in any mention of the hygienic condition of the East. They always serve a triple purpose. Primarily for prayer, of course, but invariably also for ablution and as latrines. The fountain or sunken basin, which is always placed in one of the principal courts, is probably an active carrier of contagion, even if there is the unusual luxury of running water. At the great mosque of El Azar at Cairo I counted nine men washing their faces, feet and various parts of their bodies at the same time from the same basin. In the midst of this filth it becomes an interesting question why the ravages of epidemics are not even greater, and it would seem that the answer could only be found by supposing that these people enjoy a certain immunity, because of race or other peculiarity, not vouchsafed to Europeans.

It is a matter of regret that no reliable statistics can be obtained either as to population, mortality, or the prevalence of disease. This, again, odd as it may seem, is principally due to the religious belief. As David was rebuked for the numbering of his people, so did Mahommed, in the Koran, discountenance any such inquiry, especially as to the wives or children in a household. There is even a reluctance among the men to tell their ages—not due to vanity either—so in making clinical examinations the usual way of questioning is to say, "I think you are about thirty or forty years old"; or whatever it may be.

Among the frequent diseases of the general system and causes of death there should be mentioned, first, the *morbus Bilharzii.* The other host of the parasite, to which it is due, has not yet been discovered, but when the eggs are taken into the human stomach they pass into different parts of the body, and invading the kidneys produce hæmaturia as one of the earliest and most prominent symptoms. Various other organs then show signs of disease, and in a considerable proportion of cases death ensues. Dr. Mackie, for many years in charge of the Deaconesses' Hospital in Alexandria, told me he thought about one-third of the native population there suffered from this disease, while of those from the vicinity of Tanta —in the delta—its victims included nearly fifty per cent. of all the patients. At the Government Hospital Dr. Kartulis asked me to see a *post-mortem*, where he found at least eight or ten of these parasites in the heart.

But by far the most common disease is the so-called Egyptian ophthalmia. There is so much to be said concerning this that I prefer to simply mention it here. Its frequency, however, is amply proved by the unusually large number of blind people one meets almost at every turn, and no hospital is without an abundant supply of material for the study of diseases of the conjunctiva. Dr. Tachow, the oculist of the European Hospital in Alexandria, told me he thought at least ninety (90) per cent. of the natives did suffer or had suffered from some form of conjunctivitis; and even in his private practice, composed largely of Europeans, that class furnished at least seventy-five (75) per cent. of all the patients. One day, when I wished to make an inoculation, I examined, with Dr. Kartulis, twelve individuals who considered their eyes as good as the average, before finding a normal conjunctiva.

In any such studies the leading medical men are always ready to offer a stranger all possible assistance. Dr. Schiess Bey, who is in charge of the Government Hospital at Alexandria, is one of those particularly kind in this respect, and numerous others are prompt to supply clinical material or render other aid wherever asked. If, therefore, the student who comes to Egypt fails to learn something of medicine, the fault cannot be in his opportunities, but in himself.

LUCIEN HOWE.

LETTER FROM BERLIN.

BERLIN, April 1, 1888.

My Dear Doctor—For the last three months I have been attending the polyclinic of Professors Mendel and Eulenburg. The number of cases treated annually is very large, amounting to a little more than three thousand last year. The work is divided between the two professors; each coming three days in the week. To assist them are five assistants; one of whom has charge of the massage room; another of the electrical room; two others take histories and examine new patients; while a fifth performs the duties of clinical clerk. From three until six o'clock these rooms are crowded with patients. Some of them are new cases; the majority are there to report progress and receive treatment in either the electrical or massage rooms—often in both.

There are about a dozen physicians here who are devoting themselves to nervous diseases. These are in constant attendance at the polyclinic. Every opportunity is given us to examine personally the cases which interest us; to treat electrically, and to give massage to as many patients as we care to.

Professor Mendel is a very hard worker and seems to thoroughly enjoy teaching. He uses the polyclinic to furnish him with material for his clinic—which he holds four times a week. His cases are all walking-cases; no bed-ridden patients ever come before his clinic. This is necessarily so, as he has not a hospital service. In lecturing upon the forms of spinal diseases he gives first the etiology, then the clinical history of a case, and then shows a patient who is suffering from the disease just described. The patient is examined before the class and the symptoms are explained and the many signs of disease are brought out and their clinical significance dwelt upon. After the typical disease has been thoroughly demonstrated he usually brings in from five to six (sometimes as many as eight) patients, all suffering from the same disease, but each presenting a variation from the type just demonstrated. This he has done with multiple sclerosis, tabes, progressive muscular atrophy, myelitis, poliomyelitis, epilepsy and chorea. In examining cases he pays especial attention to the muscular power of the different muscle groups. His

tests are all simple: consisting in the main of antagonizing a muscle which the patient has been directed to contract. In this way he estimates the condition of the flexors and extensors of the extremities. In examining cases which he suspects to be due to cerebral trouble, he examines in turn the condition of the cranial nerves. The olfactory is tested by applying oil of peppermint to each nostril. Taste, by putting in succession quinine and sugar on the protruded tongue, and on the ability of the patient to distinguish between them. The senses of vision and hearing by the ordinary methods. The sensory nerves are examined by the simple method of pricking the patient with a pin. The presence of paralyses indicate the condition of the motor nerves. His diagnoses of cerebral lesions are made carefully and strictly according to the teachings of demonstrated anatomy. In addition to his lectures to the medical students he gives a course to lawyers on the Legal Aspects of Insanity. This includes the theory and clinical history of insanity, the prevalence of insanity in the criminal classes and methods of detecting feigning. These lectures are very instructive and are attended by about three hundred lawyers and physicians. He brings patients before the class; gives us the history and then points out the reasons of his making a diagnosis of insanity.

As this is the only course of the kind I have attended I am unable to make comparisons, but it is difficult to imagine how it could be improved upon, meeting, as it does, the wants of both the medical and legal professions.

There remains yet another branch of this busy man's work: his anatomical course. Every Saturday evening, from six to seven, he gives a lecture on the anatomy of the brain. He has a large number of sections of every portion of the brain, including a fine series of horizontal sections of the entire brain. Besides using these he dissects fresh preparations before the class—which he and his assistant demonstrate to each student. With the exception of Sigmund Freund of Vienna he is the best demonstrator I have listened to. He has no pet views to advance which are rejected by other anatomists; nor does he confound fact with theory as does Prof. Meynert.

Prof. Westphal holds a clinic once a week on nervous diseases, and twice a week on insanity. As he has a hospital service we see

with him many forms of disease in the more advanced stages, bed-ridden cases. His methods of examination are very thorough and exact. He often spends an entire hour in the examination of one patient, believing that one case well demonstrated is worth many carelessly studied. In his clinics on insanity the patient is brought before the class; no diagnosis is given, but the history is read, and then a student is called upon to further examine the case. If the student does well, he receives but little help from the professor; but if he does not succeed in bringing out the delusions and hallucinations he is taught how to make a systematic examination. In this way all of the principal forms of insanity have been studied during the winter. After the patient has left the room Prof. Westphal gives the diagnosis and prognosis.

CLINICAL CASES.

In Prof. Westphal's clinic was presented a patient with a new and as yet unnamed disease.

Patient, a boy fifteen years old, appeared before the clinic February 11, 1888.

The following history is given. In January, 1885, he had a sudden paralysis of all the extremities. The muscular electrical irritability was diminished. The next day the muscles were in their normal condition. March 16, 1885, at 4 P. M., patient felt legs becoming weak; completely paralyzed at 4 A. M. of the 17th. Dr. Oppenheim at that time made an electrical examination, and found no reaction to either current. At 8 A. M. muscular irritability returned, at 9 A. M. fingers moved, 1 P. M. movement in all muscles, but much diminished in power. On the morning of the 18th muscles in normal condition, with the exception of the left tibialis anticus. Since that time he has had five similar attacks, the last occuring in October, 1887, when he entered the hospital. Prof. Westphal cannot explain the case either by calling it a form of hysteria or a form of epilepsy, as the electrical reaction is not lost in either of these conditions. He is unable to explain this phenomenon, and at present, for the want of a name, he calls it a case of periodical paraplegia.

In Prof. Mendel's clinic:

A woman, 41 years old, stating that she had dizziness and headache for a few hours' preceding loss of consciousness. This occurred

some months ago; cannot tell exactly. Examination shows paralysis of right ext. rectus, slight paralysis of right facial nerve, uvula hanging to the left side, hearing of right ear much impaired. When she executes the military command "Right face," she becomes dizzy and would fall unless caught. This does not occur on "Left face."

Diagnosis can be either an apoplectic clot at base of brain at the junction of the fifth, sixth and eighth cranial nerves, or an embolus in that locality. The history of the early attack was gradual, headache and dizziness before the unconsciousness; therefore, Prof. Mendel is inclined to diagnose the trouble as an embolus. The lesion is not in the cerebellum, as dizziness is entirely one-sided. His prognosis is not unfavorable, because he believes collateral circulation to have been already established, and all that is now necessary is to strengthen the patient with general feeding and tonics, and so increase the vigor of the circulation.

Two other cases in Prof. Mendel's clinic deserve being put on record in the PRESS as cases of hysteria in the male.

Case 3.—A Russian physician, aged 40, has been unable to hear the human voice for a period of eight months. All other sounds, from the rumbling of a cart in the street to the ticking of a watch, are as distinctly heard by him as by anyone. He has come to Prof. Mendel, hoping to regain the power of hearing speech. Prof. Mendel considers this a case of hysteria, but says there may be a brain lesion which he is unable to locate.

Case 4.—Man, aged 38 years, has had attacks of hystero-epilepsy for three years. The right arm is the seat of the hysterogenic zone. The slightest touch of the arm throws him in strong convulsions. Three months ago he lost the power of speech after two o'clock in the afternoon. During the hours from waking till 2 P. M. he spoke as well as anyone, but from that time till the next morning he was dumb. This was clearly a hysterical attack. He improved slowly, the periods of dumbness growing gradually shorter and shorter. The treatment was practically a faith cure. Two electrodes were placed one on each side of the neck, but no current was passed. The hysteria-epilepsy is not given a favorable prognosis.

It has been difficult to choose the cases to send to you, as there are so many that I should like to report. I have not spoken of treatment, as this does not vary essentially from that employed in Vienna. J. W. PUTNAM.

Society Proceedings.

BUFFALO MEDICAL AND SURGICAL ASSOCIATION.

Reported by W. H. Bergtold, M. D., Sec'y.

Regular monthly meeting held June 5th in the Buffalo Library Building, President Van Peyma in the chair. After the reading and approval of the minutes of the previous meeting, Drs. Hurd, Jewett, Matzinger and Banta were elected to membership. A committeee reported a memorial on the death of Dr. Davidson, one of the six presidents of the Association. Drs. W. W. Potter, Strong and Van Peyma paid tribute to the memory of Dr. Davidson, in terms befitting his eminent abilities and sterling qualities. Dr. W. W. Potter then read an able paper on "The Residues of Pelvic Inflammations," which was followed by an interesting address on "The Diagnosis of Gastric Diseases and their Treatment," by Dr. Stockton.

Discussion—(on Dr. Potter's paper). Dr. Cary inquired why the speaker had added another classification to the already large number of different divisions of pelvic inflammations? Why had he not classified them according to the tissues involved? Dr. Hartwig's experience led him to believe that the origin of these inflammations was nearly always septic. He did not believe that the uterus should always be irrigated after artificial deliveries, and he also questioned the possibility of skin diseases being caused by uterine troubles. Dr. Potter, replying to Dr. Cary, said: That usually these pelvic troubles are not confined to one structure or limited by any anatomical distinction, but are more or less diffused. It is exceedingly difficult at times to say exactly what structures are invaded; he had in view of these facts proposed the classification given, being easiest to apply to the cases seen by the practitioner.

(On Dr. Stockton's address.) Dr. Crego spoke at length; of Bartholow's observations on the use of alkalies and acid in gastric disorders. Dr. Hayd had given, he said, much attention to *lavage* and he was just as enthusiastic as Dr. Stockton in its use. He concurred with Dr. Stockton in his opinion of the usefulness of the phloroglucine—vanilline test for hydrochloric acid. Dr. Hartwig often employed a gelatine capsule containing a sponge to obtain a sample of the fluid contents of the stomach for examination; the sponge being released from the capsule by the solvent action of the gastric juice and afterwards drawn up by a string (previously attached). Dr. Hartwig also reminded the members present that due care and caution must be exercised In the use of a galvanic current when applied to the stomach, especially its internal surface. An improper application might result in the formation of an ulcer. Dr. Bartlett mentioned a case of ectasia in which the stomach held six quarts.

Under the head of voluntary communications Dr. Mynter spoke of the following cases: One of sarcoma of the ulna occurring in an old man in whose case difficulty was experienced in arriving at a diagnosis. He exhibited the anterior and posterior tibial arteries taken from a patient who died after submitting to several amputations for recurring gangrene; he also exhibited the head and neck of a femur taken from a child who was suddenly unable to walk. Examination revealed a typical dislocation of the hip, no abscess discoverable, diagnosis as to cause of dislocation uncertain. Performed a resection and found upper end of femur only slightly diseased, while the acetabulum was extensively involved, its rim being entirely destroyed and allowing of the dislocation noted.

Prevailing disease reported as diphtheria.

Essayists announced for the July (3) meeting: Dr. F. R. Campbell, subject "Syphilis of the Lungs," and Dr. B. Bartow, "Early Observations of Spinal Curvature," illustrated by stereoscopic views.

Adjourned at 10.45.

Prof. Bartholow states: Gelseminum will often do more good in *irritable bladder* than any other remedy. It is especially adapted to women of hysterical type, troubled by irritability at the neck of the bladder, calling for constant urination.

IN MEMORIAM.

Augustus Reignold Davidson, M. D., Ex-President of "The Buffalo Medical and Surgical Association." Died, May 25, 1888; aged 43 years.

Read before the Association June, 5th.

The ranks of the society are again broken by the death of an honored member and beloved associate, who merited by his unsullied character, acknowledged ability and professional attainments, the highest honor in its gift; and it is a beautiful illustration of the moral force of a pure life and a noble purpose that when fatal disease threatened, and vital power weakened and life was imperilled, the heart of the profession and of the community throbbed in sympathy with the good physician, whose life was thus early sacrificed to the cause of human suffering.

It is fitting that this society bear its testimony to his varied attainments, which were the fruits of patient labor and self-denial, to his achivements in medical science, and to the possibilities, which were inseparable from his genius. We appreciate the character was so perfect and the life that was so pure and noble. We recognize the force and consistency of his religious example which contributed so powerful an influence for good. We recall his friendship, which was so hearty and true, and we commend with gratitude the example of his life, which was guided by firm principle, by steadfast purpose and by just and honorable motives.

In the prime of manhood and in the very flush of his professional career, Dr. Davidson sacrificed his life to his zeal for the noble profession to which his superior abilities and scientific tastes peculiarly fitted him. He had lived long enough and accomplished suffiicient to leave an indellible mark upon his profession and to secure a grateful remembrance in the hearts of a wide circle of devoted patients. His achievements in the special department of medical science to which he devoted his energies, have made a valuable and permanent addition to the treasures of medical science, and the world will profit by the recorded results of his indefatigable labors which constitute a rich lagacy of his love to the profession he honored by his associations and exalted by his service.

We rejoice that our brother was with us even for a little season. We mourn the sudden death which forever removed him from us with a sorrow which reaches our inmost hearts. But he was not taken unawares. His garments were always those of preparation. Men like him are ever ready to die. His life was beautiful, his influence was gracious and his rest will be sweet. Having lived and worked worthily, and filled the measures of his days, he goes in triumph

"To where, beyond these voices, there is peace."

Explosive mixtures form quite an extended list; the following it is well to bear in mind: Chlorate of potassa and sulphur are liable to explode on attrition; chlorate potassa and caoutchouc has exploded in the mouth when used as a tooth powder. The fall of a bottle of lycopodium caused an explosion, the fine dust being ignited at a gas-jet. A druggist drying some hypophosphite of calcium over a sand bath, was killed by an explosion. Oxalate and citrate of calcium are liable to explode at high temperatures. Permanganate potash, in combination with any organic substance, is apt to explode spontaneously; a mixture of chloride potass., chloride iron and glycerine, exploded in a patient's pocket. Ozone powders, prepared of equal parts of peroxide of manganese, permanganate potass. and powdered oxalic acid, explode spontaneously. An explosion recently occurred by mixing oil of turpentine with strong sulphuric acid in the preparation of terebene. Iodine, treated with ammonia, forms, when dry, a detonating compound.—*Medical Abstract.*

Book Reviews.

Essays on Hysteria, Brain-Tumors, and some other cases of Nervous Disease. By Mary Putnam Jacobi, M. D. 1888. G. P. Putnam's Sons.

Under the above title are published a collection of valuable essays, and although most of them have been before in print, because of their excellence they are welcome again. The article on brain tumors occupies considerable space, rather too much, when it is seen that it is a reproduction of the discourse on that subject in Wood's Handbook, and therefore already available to the profession in convenient form. We are jealous of pages that might have been filled with classical observations, like those found in "Notes on the special liability to the loss of nouns in aphasia;" or, in

"A case of nocturnal rotary spasm;" or, in "Hysterical locomotor ataxia"; or in some others. The author assumes the attitude of abstract thought occasionally at the expense of the gentle reader. Thus, on the second page, speaking of hysteria, she says: "There is in it a congenital or acquired deficiency in the power of nerve-elements to effect the storage of force in nerve-tissue. This can only be overcome by increasing the amount of stimulus to which these elements are subjected." We protest that this statement is either blind or dogmatic, and respectfully request the privilege of substituting *may be* for "are" in the last paragraph. But while the book is written from an altitude allowing a wide circumspection, the author generally remembers those thinking lower down in the cloud region. S.

A Manual of Diseases of the Nervous System. By W. R. Gowers, M. D., F. R. C. P., Assistant Professor of Clinical Medicine in University College, London. 1888. Cloth, pp. 1357. Price $6.50. P. Blakiston, Son & Co.

The publication of Gowers' work is an event in medical literature. Those parts dealing with diseases of the spinal cord and nerves have been for some time before the English public, but now the complete work appears simultaneously in America and England. With the first glance one is again impressed with the serious defects in the existing nomenclature, and with the curious arrangement of matter that follows the classification adopted in this book. The author has not been oblivious to the difficulty, but intimates that a better classification is impracticable. When, however, we find him treating of neuritis in the beginning of his work, and of "paralysis after acute diseases," "diphtheritic paralysis" and the "paralysis from metallic poisoning" in the latter part, and under the head of "General and Functional Diseases," it would appear that a simpler and more natural classification would have been possible. Why is it not better to treat of such paralyses as instances of neuritis, with their peculiarities set apart and explained when necessary, rather than as distinct "General and Functional Diseases"? Surely something can be done in the way of grouping these affections, and, as a reward, there would be energy economized, comprehension made easier, and correct pathology advanced. As it now stands one is perplexed to know why "Endemic Neuritis"

and "Leprous Neuritis" should not be treated as "General and Functional Diseases" as much as paralysis after acute rheumatism, typhoid fever or erysipelas. Defects in classification may be regarded as minor ones, but when they put an author into such a situation they become at least conspicuous. But the work is a noble one, and few have brought to their writings a richer experience, a wider observation, a riper judgment than has Dr. Gowers in this treatise. It will take, and for many years retain, a high place in the esteem of the neurologist and the general practitioner; and although concerning it some may say that it has not enough departed from established English ways of dealing with the subject, this criticism will be regarded by others as a reason for congratulation. S.

INEBRIETY. By Norman Kerr, M. D. Philadelphia: P. Blakiston, Son & Co. 1888.

This volume on Inebriety, by Dr. Norman Kerr of London, consisting of 400 pages, has been written partly for the laity and partly for the professional reader. Not only the inebriety of alcohol, but that of opium, chloral, chloroform and the like, is considered. A large portion of the work is devoted to the effort to prove that there *is* such a disease as inebriety. We think American practitioners, at least, will hardly subscribe to such views as the following: That a person may suffer with the disease inebriety (inherited) all his life, but never take any alcohol or narcotic drug; or that drunkenness is a disease, and that people in the majority of cases do not drink because they want to but because they *have* to; or that the weekly Saturday night spree is pathological and comparable to a weekly epileptic fit and by inference just as excusable. These views are, to say the least, radical. That inebriates become diseased and require medical treatment, especially when the habit is confirmed, is a fact established by every-day observation, but that in the majority of inebriates a specific disease, called *inebriety*, precedes intoxication and impels to it, we think the author has failed to prove. *This* doctrine, as also that of an alcoholic trance state which the author supports, would be dangerous from a medico-legal standpoint if generally admitted. It is not borne out by scientific observation. This portion of the work, though abounding in solace to the habitual drunkard, is unsatisfactory reading to the medical man.

We think even the old police-court offender would smile to hear his thirstiness classed with the "pre-paroxysmal pathological antecedents." The chapters on treatment contain valuable suggestions, but present nothing new in the way of therapeutics, and in fact no specifics are to expected. The suggestions as to institutional treatment, which he recommends, are clear and will be of great service to the friends and physicians of inebriates, and the necessary legal steps for admission to such institutions are plainly laid down. Like information if generally in the hands of physicians of our own country would undoubtedly lead to similar institutions being more widely taken advantage of than at present. Considerable labor has been spent in collecting the legislation on inebriety which has been adopted in the different countries of Europe and America, and forms a valuable and interesting section of the book. The work in general evinces care and labor, and will be of especial service to those British practitioners to whom the vexing question of what shall be done with the inebriate comes frequently for decision. A. W. H.

THEINE IN THE TREATMENT OF NEURALGIA. By Thomas J. Mays. 1888. Pp. 84. Price 50 cents. Philadelphia: P. Blakiston, Son & Co.

This little book is deserving of a more extended review than its size might seem to justify; for original and careful investigation into the physiological actions of drugs supported by clinical study of the substances are rare enough to entitle them to attention and encouragement. Most of us remember the not remote teaching that an alkaloid called theine or caffeine might be had from the tea leaf, coffee, the kala nut, guarana and other sources; and to those "impressible agitators," as Dr. Holmes would name them, who insisted upon having an explanation for the well-known different behavior induced by the administration of tea, coffee and guarana there was no answer, save a vague reference to extractive matters and empyreumatic oils. There is some satisfaction in the light of Dr. Mays' conclusions, in recalling the statements of a certain teacher that, "judging from clinical study, there are doubtless distinctions between these alkaloids, as between those derived from plants grouped together as mydriatics." Dr. Mays shows that theine introduced hypodermically is peculiar in affecting the sensory nerves

towards the periphery, but not central from the point of introduction. Also, that in doses of from the one-fourth of a grain to three grains it is competent to allay pain and obtain sensibility without inducing noticable motor or cerebral phenomena. While we possess many agents which profoundly inhibit the motor functions, it is an extraordinary fact that pure, simple anæsthetics or analgesics we have none. Even a slight advance in this direction is refreshing, and it now remains for practitioners to buy this little work and put its suggestions to the crucial test of practical experience. S.

THE INFECTIOUS DISEASES. By Karl Liebermeister, Professor of Clinical Medicine in Tübingen, Germany. Translated by E. P. Hurd, M. D. 1887. Pp. 269. Paper, 50 cents. Detroit: Geo. S. Davis.

These two volumes constitute Nos. 8 and 9 of the Physician's Leisure Library for 1887, and are an admirable translation of portions of Liebermeister's work, who has long been known as one of the highest authorities on febrile diseases. The first volume contains the chapters on malaria and typhoid; the second is occupied with the contagious diseases: small-pox, scarlet fever, diphtheria, measles, varicolla, rubella and vaccinia. The very important chapter on "The Nature of Infection," however, does not appear in the translation. Liebermeister's book appeared about three years ago, and has been generally recognized as a work of great merit; and though since its publication considerable has been learned and added to our knowledge of the infectious diseases, the principles put forth in it still hold good, perhaps always will. The translator has in many instances augmented the work with such notes and remarks as will bring it up to the times and make it really valuable to the clinician as well as the pathologist; in fact, he has made therapeutics the principal object. In an appendix to the first volume he gives a very valuable summary of the treatment of typhoid in our principal hospitals, with considerations on the cold bath treatment and the value of antithermic remedies, especially antipyrin, in combating the pyrexia of typhoid fever. The translation and wide distribution of standard and reliable works of this kind will do infinitely more toward the understanding and intelligent treatment of these serious maladies than hundreds of florid reports of happy coincidences of treatment, that are as empirical as they are misleading.

WHAT TO DO FIRST IN EMERGENCIES. By Dr. Chas. W. Dulles. Third edition revised and enlarged. Pp. 122. $1.00. Philadelphia, Pa.: P. Blakiston, Son & Co.

This little book gives in a convenient way a series of short and concise instructions which may prove very useful to the public at large in cases of accidents. Time and again people have bled to death, although surrounded by many persons, not one of whom had the faintest knowledge of how to stop the blood, and when finally a physician arrived, it was too late. The little book will give to a careful reader all the hints necessary to bridge over the time between the accident and the arrival of the doctor, and is well worthy of perusal; indeed a little more knowledge of the subject on the part of intelligent men would often prove very useful, although we seriously question the advisability of placing into the hands of *everybody* the "box of a few things useful in accidents or sudden sickness," and the wholesale use of laudanum; neither do we think it fair to the coming generations to state that "Paregoric is the best preparation for children, and an infant a few hours old will stand three drops," etc. That kind of "home-doctoring" is only too apt to result in evil consequences, and should certainly not be encouraged or advised.

A COMPEND OF HUMAN PHYSIOLOGY. By Albert P. Brubaker, A. M., M. D. Fourth edition, revised and enlarged. Pp. 169. $1.00. P. Blakiston, Son & Co. Philadelphia.

The fact that a fourth edition of Dr. Brubaker's "Compend of Human Physiology" has been called for, is in itself enough to demonstrate the usefulness of the little book. With the exception of "Yeo's Manual," all our text-books on physiology contain more matter than the student can assimilate during college life, and a systematic condensation of the principles elaborated in a book of, perhaps, 600 or 800 pages gives the student a better opportunity to grasp the principles than he could obtain if he had to refer to the voluminous text-book for every obscure point, or every neglected or forgotten note. Of course this compend is only an *aid* to the student, not a teacher, but as such it is a very useful companion and well worthy of the support it has so far received. The new edition has been revised and enlarged by new figures and ten pages of additional reading matter.

A Guide to the Practical Analysis of Urine. By James Tyson, M. D., Prof. of General Anatomy and Morbid Anatomy in the University of Pennsylvania. 1888. Sixth edition. Pp. 253; cloth. Price, $1.50. Philadelphia: P. Blakiston, Son & Co.

Dr. Tyson is with good reason considered one of the most reliable authorities on urine in this country, and his book has been for years the student's and practitioner's guide in the analysis of urine. It really is more than a guide; giving, as it does, the various tests and processes for the detection, both chemical and microscopical, of abnormal and normal constituents in excess, and their clinical significance, with the mode of production of each, and pointing out those processes which are at the same time easiest of application and most reliable for routine work. The most important additions in this edition are the new tests for sugar by phenyl-hydrazin, hydrochlorate and by alpha-naphthol and thymol. It is a reliable book, thoroughly up with the times, and already so favorably known that it is but necessary to announce the appearance of its sixth edition.

M.

BOOKS RECEIVED.

From E. B. Treat, New York:
Diseases of Women. 3 vols.: Graily Hewitt.

From Wm. Wood & Co., New York, through J. H. Matteson:
Reference Handbook. Vol. VI.
Atlas Skin and Venereal Disease. Part V.

From Chas. Truax & Co., Chicago:
Intubation of the Larynx. F. E. Waxham.

From Lea Bros. & Co., Philadelphia:
American System of Obstetrics. Vol. I.

From D. Appleton & Co., New York, through Otto Ulbrich:
Applied Anatomy of the Nervous System: Ambrose L. Ranney.

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The Medical Press
of Western New York.

Vol. III. AUGUST, 1888. No. 8.

CONTRIBUTIONS TO ABDOMINAL SURGERY.

By Roswell Park, A. M., M. D.
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I. *Gastrostomy, by aid of Cocaine Anæsthesia, for relief of Cancerous Stricture of the Œsophagus:*

Mrs. McCann, 47 years of age, was sent to me during the summer of 1886 by Dr. H. M. Eddy, of Geneva, N. Y. Her family history good. For eighteen years she had noticed occasional dysphagia, sometimes only for a few moments, sometimes for a few days, and then, perhaps, not for several weeks. This was probably a spasmodic condition, but about January 1, 1886, became positive and constant. It was always worse at the time of her monthly periods, and was then accompanied by more pain; until recently she had a good deal of pain referred to the base of the neck. Since March, 1886, she has swallowed nothing solid. At one time she expectorated some pus, after which, for a few days, swallowing was easier. In May, on account of inability to take nourishment, she became extremely reduced and weak. Since then Dr. Eddy had been introducing a very small catheter into the œsophagus three times a day, and through this injecting fluid food.

June 14, 1886, I first saw her; she had then a very cachectic look, said she had lost thirty pounds, and was exhausted from her journey. At this time she suffers but little pain, much less than formerly. She still menstruates regularly; bowels move every two or three days. On exploring with bulbous bougies I find stenosis of the œsophagus, about six inches upon the upper incisor teeth, and consequently about one and one-half inches above the level of the clavicle. This permits, with difficulty, the admission of an elastic catheter of size 17 French. This has usually been introduced three times a day, but once or twice lately she says that Dr. Eddy has

allowed it to remain *in situ* for a day or two. She cannot even swallow her saliva, which she accordingly has to keep spitting out. The entrance to the stricture seems a little to the left of the middle line; externally nothing can be felt; no enlarged glands, nor indication of other disease can be detected. Concluding that the trouble was of a malignant nature, and realizing that the patient was too weak to permit at that time any extensive operation for excision of the cancer, I could only recommend gastrostomy.

June 16, the patient having been prepared by baths and enemata, was fed at 7.30 A. M., the tube being left *in situ* until after the operation. This was made in presence of the hospital staff, of her physician, Dr. Eddy, and of a large number of professional gentlemen of Buffalo. In the line of the contemplated incision I injected, subcutaneously, twenty-five minims of a four per cent. solution of coçaine, in which one-fourth of a grain of morphia had been dissolved. I then mildly inflated the stomach by separately injecting through the œsophageal tube the constituents of a Seidlitz powder, and thus brought the stomach well to the front for operation. Drs. Mann and Phelps assisting me, I made an incision three inches long through the skin, beginning just outside the navel, parallel to the free margin of the ribs, and extending three inches to the left. Working through this incision I penetrated the outer half of the rectus muscle, whose fibers were cut, and then those of the oblique, by separating them without incision—desiring to secure from them a certain sphincter action for the opening. The epigastric artery I tied and cut, it being in the way. Allowing all oozing to subside I then opened the peritoneum to the extent of one and one-half inches. The colon first presented; pushing this aside the left lobe of the liver appeared. With some little difficulty the colon was depressed by sponges in holders so as to permit seizure of the stomach. This was then with a tenaculum seized at its most available spot and drawn up to the external wound. The fold which thus presented I transfixed with a long hare-lip pin, and thus held it in the wound. Four silk sutures were then introduced, passed through the skin, peritoneum, outer coat of stomach, and then back through the peritoneum and skin. These were tied on the outside of the skin at a little distance from the margin of the wound. The

stomach being thus fastened in place, I applied a catgut suture around the margin of the wound, uniting skin, peritoneum and serous coat of the viscus. The portion of stomach wall exposed in the wound was nearly one inch in length by half an inch in breadth.

The operation consumed just fifty-five minutes. Cocaine was injected once after I began; altogether one and a half grains were used hypodermically, and a little of the four per cent. solution was applied to the surface of the wound. Though the patient was somewhat frightened she afterwards acknowledged that she felt but very little pain. No sensibility was evinced when the finger was introduced into the peritoneal cavity. After the stomach had been brought up and fastened to the front, dressings of iodoform gauze were applied, and over these a compress with binders. The hare-lip pin was left *in situ*, its ends protected by lead plates. Directions were given to feed the patient by enema, and administer morphine if necessary.

Five days later, the patient's temperature having only once been as high as ninety-nine and a half, I applied a little cocaine locally and punctured the stomach wall with a galvano-cautery, without pain to her. Not until the following day was the tube introduced through this opening, and four ounces of egg and milk administered through it; that day she was allowed to sit up.

For several days subsequently I was out of town, and did not see her again until July 3. She was then walking about, feeling much stronger and better, digesting well that which was introduced into the stomach, and desirous now of having the radical operation of which we had spoken previously. On laryngoscopic examination I now found that which I had not found previously, namely, most evident occular proof of the malignancy of her trouble and its rapid advance, since now an epithelomatous mass could be plainly seen, involving the posterior laryngeal wall, encroaching on the glottis, and already causing slight dysphonia. On this account I declined further operative procedure and sent the patient home. A letter subsequently received from Dr. Eddy informed me that she died on the 20th of August; that her case presented the usual symptoms of rapid spread of cancerous disease, pain, emaciation, *et cetera.*

Also that she died of dyspnœa and exhaustion, for which latter he proposed tracheotomy, which she declined.

He made an autopsy and found cancer of the œsophagus, involving five or six inches of its length, completely closing it for four inches, spreading to the trachea, to the larynx, the thyroid gland and adjoining tissues.

This operation is believed to have been the first laparotomy undertaken solely with aid of cocaine as a local anæsthetic; certainly the first operation of any such magnitude. Since then the reporter has frequently used it for herniotomies and similar operations, but never with more conspicuous advantage.

II. *Successful Resection of Intestine for Radical Cure of Fæcal Fistula:*

November 23, 1887, I was called by Dr. Parmenter, of this city, to operate upon a patient suffering from strangulated umbilical hernia. Her age was 40. She stated that she had borne seven children; that she had had the hernia for fourteen years, and that after each confinement it had been worse. Several times it had been strangulated for a few hours, but each time previous to this it had been replaced. I found a hernial protrusion, the size of a large teacup, and that the strangulation had existed for three hours. Dr. Parmenter had already chloroformed her and endeavored to reduce by manipulation, without avail. It seemed that she had been confined only thirteen weeks before, and had scarcely gotten about the house again from this last labor. She was a woman of medium height, but fleshy and with a very pendulous abdomen. Dr. Parmenter giving chloroform again, I operated at 4.30 P. M., assisted by Dr. Matzinger. I found a portion of small intestine which was tightly strangulated, and a mass of omentum. The intestine was quite black, the odor being somewhat unpleasant, but it still presented a shining surface. The sack of the hernia was filled with bloody serum of bad odor. In my manipulation the external and middle coat of the intestine tore in one place, so that there was quite a hernia of the mucous membrane. This rent I sewed up with a continuous suture of very fine catgut. The surroundings of the patient made it impracticable to attempt any very radical procedure, and the operation begun near sunset of a winter day had to

be completed by dim lamp-light; otherwise, I might have acted differently. After enlarging the ring I restored the gut to place, then ligated the omentum in two places and excised the part outside the ligatures. I closed the ring with three deep silver sutures, then excised the sack after ligating its neck and closed the external wound with five silver sutures.

The patient bore the operation well, presented no disturbance of any kind, and on the 29th of November I removed all of the stitches. As I withdrew the last silver suture a bubble of offensive gas escaped; nevertheless, the wound appeared entirely healed

On the 2d of December Dr. Parmenter called me again to see the patient, when I found the lower margin of the wound converted into a fæcal fistula, through which fæcal matter was almost continually escaping. I learned that after my last visit, in spite of admonishings, the patient had gotten up from bed, had shaken down a coal stove, had given herself an injection, and had done various injudicious acts. As a result of our consultation the patient was sent to the Buffalo General Hospital, where I watched her for a few weeks. During this time the following changes were noted in the wound. At first it appeared to be filled with a sloughing mass, alongside of which fæcal matter escaped. Day by day I removed small shreds of slough, which presented very strong likeness to shreds of intestine, though I could not accurately determine this. By the end of the second week the slough was pretty well separated. About this time a long, round worm, eleven inches long, was found partially protruding through the fistula, and was removed by the nurse while still alive. The wound now contracted daily, but there was no diminution of fæcal matter. When I tried to plug or close it she began vomiting fæcal matter. As soon as the plug was removed this vomiting ceased. Everything which she took into the stomach in the nature of food appeared within a short time at the wound, so it was evidently in the small intestine near the stomach. She was nourished almost exclusively by enema. After giving the opening every opportunity to close spontaneously, I yielded to her insistance and consented to operate.

Operation was made December 29, 1887, in the Gates cottage, the laparotomy pavilion of the General Hospital, Dr. Mann and the

hospital staff assisting me. Chloroform was the anæsthetic. The fistulous passage extended through the thick abdominal wall, and at this time was about a line and a half in diameter. I reopened the old incision and exposed the peritoneum. This was again opened below the fistula, at a point where it seemed to be free from adhesions beneath. Then by an elliptical incision, some four centimeters in length and two in width, the fistulous track with its surrounding peritoneal and aponeurotic cicatrix was excised. This mass with its underlying intestinal coils was then brought out for examination. These coils were more or less agglutinated, but the adhesions were for the most part easily separated. Finally, the external cicatrix was found intimately connected with a particular coil, and a probe passed through the opening was felt inside the gut. On investigation it was now found that the intestine came to an end, and that my surmise, that a portion of the intestine had sloughed away, was quite correct. A band of cicatricial tissue led to another blind intestinal end, about five centimeters distant. The mesentery of the lacking portion seemed unchanged; the fistulous opening was not more than one centimeter from the rounded ending of the proximal part. I now excised two centimeters from each end of the blind intestine, included the mesentery in a catgut suture, and began to restore the continuity of the intestinal canal. With one suture I included the overlying mesentery in such a way as to bring the mesenteric borders at the two ends into immediate approximation; then a row of Lembert sutures was applied all around the gut, and after the first a second complete row. These were of very fine Chinese silk; the union was thereby made apparently perfect and without possibility of leakage. Altogether thirty-eight sutures were applied. The mass was rested on a flat sponge outside the abdominal cavity while this suturing was being effected, and temporary occlusion of the intestinal canal was made by means of two Rydygier clamps, whose blades were covered with rubber tubing. The mass was then dropped back into the abdomen. No blood nor fæces had escaped from the edges of the old wound. The cicatrices of the old fistulæ in the thick abdominal walls were then excised and the clean fresh surfaces were held in approximation by five silver and six catgut sutures.

The time consumed in the operation was one hour and thirty-eight minutes. Reaction was good; there was no shock; her recovery proceeded without interruption; the highest temperature noted at any time was ninety-nine and three-fourths. Fifty-six hours after operation she had spontaneously the first natural evacuation of the bowels; ten days after the operation she was permitted to sit up. She was discharged recovered January 13. She has since then been stronger and in better health than for many years.

AN ANOMALY IN THE REFLECTION OF THE PERITONEUM.

BY W. C. PHELPS, M. D.

Demonstrator of Anatomy, M. D., Dept. Univ. of Buffalo; Surgeon to Buffalo General Hospital.

Very few subjects are dissected in our dissecting room in which there are not some deviations from what is considered the normal arrangement of the tissues, and which are not pathological in their nature. These Gray calls *peculiarities*, and describes nearly all that are met with. During the last dissecting term, however, we found a peculiar arrangement of the peritoneum, of which no mention is made in any work on anatomy to which I have had access, and which I believe has never before been described.

The subject, an adult female, well nourished, had the parts normally arranged in the abdominal region as far as the cavity of the peritoneum, but on opening this sack, immediately beneath the great omentum, was another sack through which the small intestines could be plainly seen. It extended upward as far as the descending portion of the duodenum, and below to the brim of the pelvis. No part of the small intestines was found outside of this sack, excepting about three inches of the ileum at its junction with the cæcum and the first portion of the duodenum. On laying open the sack it was found to be covered on both sides with epithelium, and had a root which was attached in the same locality and to about the same extent as the root of the mesentery. It was composed of two layers of tissue which were applied to each other by their rough or pointed surfaces and were firmly blended like the layers of the great omentum, excepting at the upper and lower borders where they separated to allow the entrance and exit of the

bowel. This separation was well marked at the point where the ileum left the sack, as it continued a short distance between them. It enclosed no other organs than the three portions of the small intestines as I have described. It can readily be imagined how embarrassing this condition of things might have been to the operator, had this individual during life required a laparatory. As this operation would have exposed but a small portion of the sac, it is doubtful if its great extent and curious arrangement could have been appreciated.

The question suggested itself to the class dissecting this subject as to what portion of the peritoneum this extra reflection might be said to be a part of—the mesentery. the great omentum, or the parietal portion of it. A reference to Ziegler's Pathology, Chap. XXX., "Development of the Serous Cavities"; and Chap. VIII., *etc.*, pp. 271 *seq.* Foster and Balfour, Elements of Embryology, suggests the probability that this was derived from, and should be considered a part of, or additional reflection of the mesentery, as this portion of the peritoneum is first formed in the embryo from the hypoblast or secretory layer of the blastoderm by a process of abstriction from the central cavity which ultimately forms the alimentary canal. It is the point in the body-cavity from which is reflected all portions of the peritoneum found in the abdomen and pelvis. As to what was the exciting cause acting in this embryo, which produced another reflection of the peritoneum, when medical students think that there is enough or more than is ordinarily of any use, I will not attempt to conjecture, but refer it to those who are skilled in accounting for birth-marks, etc., in the new born.

A MAN reading a newspaper in a car on the elevated road was observed to chuckle vociferously. Another man sitting alongside of him remarked: "You seem to be very much amused?" "You bet I am amused. I expect to rake in several thousand dollars." "Rich relative dead and left you money?" "Better than that. I have just read that the Board of Health is going to tear open the streets in my ward and lay new sewer pipes during this warm weather. That means typhoid fever, and I am an undertaker. I tell you, my dear sir, I don't know what we poor undertakers would do for a living if it wasn't for that Board of Health."—*Texas Siftings.*

REMOTE EFFECTS IN A CASE OF EXTENSIVE INJURY TO THE SKULL.

BY W. H. BERGTOLD, M. D.
Buffalo, N. Y.

To the *Philadelphia Medical and Surgical Reporter* for September, 1857, an article was contributed by Drs. Rutherford of Harrisburg, Pa., and Seaman of Millsport, N. Y., entitled "A Case of Loss of Nearly Half of the Bones of the Skull, with Exposure and Sloughing of a Portion of the Brain." It is quoted in part below:

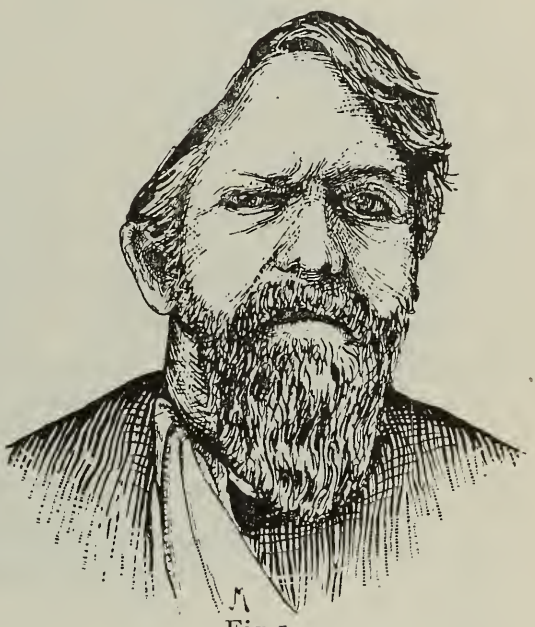

Fig 1.

"On the morning of the 23d of July, about three o'clock, I was requested to visit Mr. Edward Thomas, at Highspire, a village on the Pennsylvania Canal, six miles east of Harrisburg, who was said to be seriously injured by his head striking against a canal bridge whilst asleep on the deck of his boat. I reached Highspire about four and one-half o'clock and found Mr. T. in bed, his hair filled and matted with blood, his vest, shirt, upper part of his pantaloons, and bed saturated with it, and a horrible looking vent in the scalp from the right superciliary ridge to the occipital bone. The wound was filled with coagulated blood which stood up high above the level of the surrounding parts and some blood still oozing from the wound. In a cloth on a bench on the opposite side of the cabin was rolled up a portion of the malar bone, some fragments of the os frontis and the entire right parietal bone detached from its fellow along the sagittal suture and from the occipital along the lambdoidal suture, or perhaps taking some part of the occipital bone with it together with the squamous portion of the temporal bone. It was as clean of soft parts as if it had been

removed from the dead subject with scalpel and saw. In the clots which I removed I did not discover any discharged brain, nor did I get a sight of the membranes of the brain. The dressing occupied an hour or perhaps more, at the end of which he rose to his feet and removed his vest and shirt and put on a clean one; he then took off his pantaloons, and, being handed a clean pair, poised himself on one foot and thrust the other into the leg of the pantaloons, changed feet and thrust in the other leg, drew them up, buttoned and adjusted them with care, just as if nothing had happened to him.

"MORTONVILLE, July 30, 1857.

"DR. RUTHERFORD:

"*Dear Sir*—My brother-in-law, Edward Thomas, is still living in full possession of all of his mental faculties. The dressing has not been removed from the wound but he is apparently doing well. For your gratification I will give you the actual measurement in a straight line across the concave surface of the piece of skull broken out, which now lies before me. You will recollect it was of an oval form, and I find it measures six and three-fourths inches in its longest diameter and five and three-fourths in its shortest diameter.

"AUGUST 5, 1857.

"I removed the dressing on the eighth day and found the sutures all sloughed out and no union of the wound by first intention. The edges of the wound were widely parted, the scalp hanging in a fold over the ear, leaving a portion of the surface of the brain the length of the wound, and one and one-half inches wide, exposed to view. I have since and with much difficulty shaved off the entire scalp and brought the edges of the wound nearly together by adhesive straps, supporting them by the application of a bandage to the entire head. Suppuration is gradually going on and granulations forming over the surface of the dura mater. All his symptoms at present are favorable.

"AUGUST 8, 1857.

"I have just finished dressing the wound and find the floating scalp firmly attached to the dura mater in every part, and covering it, except the exposed portion, a strip three-fourths of an inch wide by six inches long, and this entirely covered by strong and healthy

granulations. I have continued to dress the wound with long adhesive straps. I had forgotton to mention above that his intellect remains undisturbed and that considerable of the lower part of the right frontal lobe of the brain was so injured that it has sloughed away. I remain,

"Yours, etc., H. SEAMAN."

This communication was reprinted in the *Buffalo Medical and Surgical Jonrnal* for October, 1873. It was then stated, editorially, by Dr. Miner that the patient was in vigorous health and suffered no

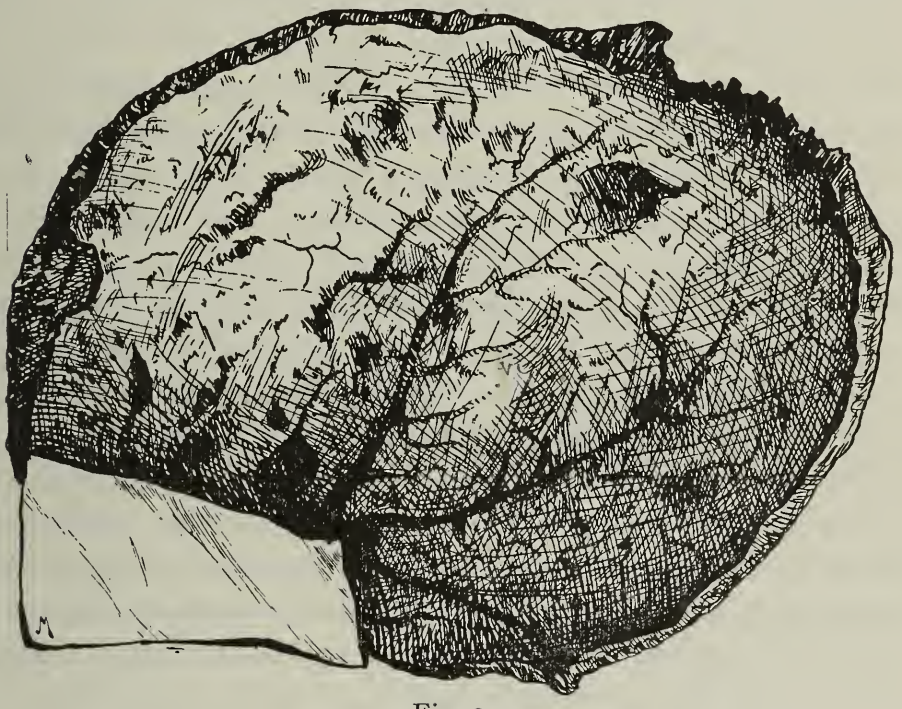

Fig. 2.

inconvenience from the injury save a sense of fulness in the head when he stooped or engaged in active exertion. The late Dr. Gray of Utica republished the case, amongst others, in an article on the "Reparation of Brain-Tissues After Injury," contributed to the *American Journal of Insanity* (April, 1876). From Dr. Gray's report I learn that the patient was still in full health and had, up to then, suffered no mental or other disturbances.

Mr. Thomas was admitted to the Buffalo General Hospital on May 10, 1887, while the writer was on duty as House Physician, and gave the following history; Æt. 53, married, children all healthy; previous to the accident in '57 and subsequent to his

recovery in '58 he was entirely well. When bending over or working hard he always experienced a sense of engorgment at the site of injury. No specific or apoplectic history. In 1883 (twenty-six years after the accident) a slight unsteadiness of gait was first noticed. This trouble increased and gradually pronounced itself as a genuine paralysis and extended from the left leg to the left arm and opposite side of the face. Has had no loss of memory, no aphasia nor headaches. At times experienced attacks of dyspnœa, asthmatic in form. Control of vesical sphincter normal. There has been lately some weakness of the rectal sphincter; bowels evacuating spontaneously at times. Appetite good; sleeps well. Physical examination: Patient is a corpulent man weighing about 200 pounds. Head presents in the place of the right parietal bone a marked deficiency, as though a slice, so to speak, of the skull were cut off. The tissues beneath this surface are soft and at the edges can be felt the distinct lines of what appear to be the interparietal, the right parieto-occipetal, and the right parieto-frontal sutures. The depressed area is about five by six inches in extent, roughly elliptical in shape, and extends, together with the scar of the old injury, backwards from the external angle of the right eye to the posterior superior angle of the left parietal bone. No pain is elicited by pressure on this soft surface. The skull is adherent to the underlying structures. Paralysis of right side of face almost complete and ptosis of right eye marked; drivels from right side of mouth; special senses are apparently normal. Speech is slow and labored, not from aphasia but from paralysis. The usual trouble in masticating, from buccal paresis is found, together with inability to swallow solids. Tongue protruded to the left, and lower lip pendulous. Atrophy in trunk and extremities noticeable, but not so marked as might be expected from duration of paralysis. Cutaneous adipose rounding out parts very well. Left arm nearly completely powerless, can raise forearm a few inches, using biceps. Spastic pronation of hand and flexion of fingers. Spastic contraction also exists in the left leg. Can walk by pushing a chair ahead and using it as a support. Leg dragged forward by psoas and advancing pelvis. No changes in skin sensibility, while muscles of paralyzed parts respond to both the continuous and interrupted

current. Patient presents no delusions, hallucinations, etc. He is, however, irritable and easily disturbed. Mental equilibrium readily destroyed. Sobs uncontrollably when criticised or a supposed slight or injustice has occurred to him. Beyond a general tonic and hygienic treatment nothing was done for him save faradization of the paralyzed parts. He left the hospital October 24, 1887, considerably improved; was able to go about easier, and could raise left forearm a few inches higher.

I would draw attention to the following points: The evident deficiency of cerebral tissue on the right side; the relation of the injury to the motor centers for the left arm and leg, and the centers for the facial and hypoglossal nerves, viz., the paracentral lobe and the gryri-centralis (Nothnagel); the entire absence of any paralytic symptoms at the time of the injury; the spastic contraction of the paretic parts; the perfect left hemiplegic character of the attack, and the gradual onset of the late symytoms. From these points it seems to the writer that the following deductions can be made: That there probably began immediately subsequent to the injury an atrophy of the central tissues situated beneath the site of the right parietal bone; that this atrophy included the motor centers for the left arm and leg; and the centers for the facial and hypoglossal nerves; that, the atrophy being slow, the remaining right cortex took on vicariously the duties of these atrophying centers; that there gradually occurred (within the last five years) degenerative changes in these right compensating parts, and that the compensation did not occur in the left hemisphere. The writer appreciates that these ideas are purely speculative, for there is no positive knowledge of the amount of injury sustained by the right cortex. The case, however, is important, and illustrates in part the dictum promulgated long ago by Hypocrates that "no injury to the head is too slight to be despised or too severe to be despaired of."

Fig. 1 is a copy of a photograph of the patient taken in August, 1887, by the writer, and Fig. 2 a copy of the photograph of the detached bone, accompanying Dr. Gray's paper spoken of above.

SULPHURETTED hydrogen gas is now recommended as a remedy for consumption. If blown out on retiring, it can be depended upon to work a perfect cure.—*Pittsburg Chronicle.*

PSYCHICAL RESEARCH.

BY J. B. ANDREWS, A. M., M. D.
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[CONCLUSION.]

The American society have had little success in their efforts to illustrate transference of thought or telepathy. Professor Newcomb, in his presidential address, explains the nature and character of the evidence demanded to place this subject outside of existing laws and to demand the introduction of new laws, either psychical or physical, to explain the phenomena. As yet, the American society is not prepared to acknowledge even the existence of thought transference from their own experimentation. The whole subject, treated of in the books to which we have referred, "Phantasms of the Living," has been critically analyzed by Professor Pierce of Harvard University. He points out the defects of the examples which have been given by showing their general lack of true scientific accuracy. We may conclude, then, that so long as persons skilled in the investigation of scientific subjects have not, as yet, decided what is true and what is false, what is fact and fiction, and, therefore, have not been able to explain to us these extraordinary mental phenomena, it cannot be expected that those without such opportunities and such knowledge can throw any material degree of light or add any material degree of knowledge. However, the continued accumulation of these incidents and facts is of great importance and value, as by this means alone we can hope to arrive at the truth and prove the existence of some other psychical laws than we at present have knowledge of to account for the phenomena.

The next subject that claims our attention is mesmerism, or, as it is more commonly called at the present time, hypnotism. Of the existence of it there is no question. We are all familiar with examples, though we may not be familiar with all that has been accomplished by it. It is not necessary that I should explain the methods by which this hypnotic state is accomplished. Only certain people can be affected to entire insensibility, while many are more or less susceptible to the influence. A greater degree of susceptibility exists among women than among men. Some experimenters have

found that one-eighth of the female subjects experimented with were susceptible, but many of these were not what is called good sensitives.

The antecedent condition most favorable to the hypnotic state is an unstable condition of the nervous system. The instances of the induction of trance or the somnambulic state, while in the presence or close proximity to the subject, are sufficiently common not to demand any special illustration. The induction of a trance condition at a distance from the subject shows a higher degree of control and a greater susceptibility of the agent, though it does not seem to call for any greater power on the part of the operator.

Instances are common in the experience of all mesmerists where subjects are put to sleep at given hours, no matter what the distance intervening may be, and often this occurs without the operator thinking of or willing the occurrence at the time.

There are many very curious things connected with the phenomena of hypnotism. It is generally found that what occurs in the trance condition is unknown to the individual when in the normal state, while in a subsequent trance condition these occurrences may all seem real and have the same effect upon the individual as if they were. These things are recalled only in a subsequent trance condition.

The power which the operatior seems to possess over the subject is at times of the most complete character. Sensation is abolished so that surgical operations of the most severe kind are performed without the knowledge of the patient, even to the amputation of a limb. The instances of what is called "deferred suggestion" are of a most interesting character, in which the operator, while the subject is in a trance condition, will direct that he shall do certain things perhaps hours, days, weeks or months in advance, as, for instance, that upon the following evening the sensitive should go to the house of the operator at a certain hour, though this may be located at a long distance away; that upon the following or some subsequent day, at a certain hour, the sensitive should perform a certain act which is commonly extraneous or contrary to the custom of the individual. There have, recently, in the hospitals of Paris, been some extraordinary examples of this power over the individual

in the hypnotic state. Suggestions of crime have been carried out; of forgery, of theft and attempts even upon the lives of individuals.

Again, and, perhaps, among the most remarkable instances of this hypnotic influence, is the fact that patients have been made to bleed at the nose, or bleed from certain parts of the body, merely upon the suggestion of the operator. This may account for the "stigmata" which have been so often noted in medical works.

Now these are facts which are well-known. They are not simply theories or possibilities, but such things as come within the every day knowledge of persons who are familiar with this subject; but though this is truth, as yet we do not know the laws which govern this nervous phenomena.

There are, however, certain well-known principles in mental action which serve to offer partial explanation. In "Carpenter's Mental Physiology" we find the method by which this state referred to is induced, and he also gives his views of the condition itself. The more common method of inducing the hypnotic state is by a long sustained steady gaze upon some object placed in front of the agent's eyes. The longer the gaze is sustained the more is the will of the individual withdrawn from the direction of his thoughts and concentrated upon that of his eyes, so that at last it seems to become entirely transferred to the latter, and the continued monotony tends, in the direction of sleep or of reverie, to produce a corresponding state of mind which can be molded and controlled by external influences. In this state the mind may be roused to activity by some suggestion which it receives through the ordinary channels of sensation, and to which it responds as automatically as a ship obeys the movements of its rudder, the whole course of the individual's thought and action being completely under external direction. He is, indeed, for the time a mere thinking automaton, whose mind is given entirely up to the domination of any idea that may transiently possess it, and of that idea his conversation and actions are the exponents. He has not the power of judging of the consistency of his idea with actual facts, because he cannot determinately bring it into comparison with them. He cannot of himself turn the current of his thoughts, because all his power of self-direction is in abeyance, and thus he may be played on, like a musical

instrument, by those around him; thinking, feeling, speaking and acting just as they will he should think, feel, speak and act. But this is not, as has been represented, because his will has been brought into direct subjugation to theirs, but because his will, being in abeyance, all his mental operations are directed by such suggestions as they may choose to impress on his consciousness.

There is no end to the strange performances which may thus be called forth, but they are all referable to the one simple principle already laid down as a characteristic of this state, the possession of the mind by the dominant idea, which the individual has lost all the power of contesting by his previous or present experience, simply because he cannot direct his thoughts to any other object. Of this dominant idea, introduced by suggestion from without, all his acts are the direct expression so long as he remains possessed by it, but as soon as his attention is directed to another channel or his previous idea of the necessity or of the impossibility of the action is dissipated by a word or sign or look on the part of the individual who is thus directing his thoughts and actions, the potent spell by which he appeared to be enchained is at once dissolved, the effort to fulfill the supposed necessity immediately subsides, and the most violent struggle with the assumed impossibility at once comes to an end.

Another has described the condition of a person in a state of hypnotism as one in which the part of the nerve apparatus associated with conscious perception is thrown out of gear, without preventing the kind of movement which would result were it really in action. Impressions are made upon the sensory organs, the sensory nerves convey the impression to a part of the brain; in the deepest condition of hypnotism this impression may not arouse any consciousness, but the result may be the kind of movement which would naturally follow supposing the person had been conscious.

This is the theory of unconscious cerebration, which is invoked to account for the actions, conduct or feelings of the agent without volition and without apparent consciousness. But there is no time to attempt to explain these views by any process of reasoning. I prefer to leave them simply as the statement of those who have devoted much time and thought to the explanation of the hypnotic state.

Concerning the subject of spiritualism we have not deemed it necessary to make any special remark further than to say that this subject has received very full attention from the English commission, and that there is evidence enough to show that the various classes of phenomena produced by spiritualistic mediums and in spiritualistic séances can all be reproduced by professional conjurers and by those who have given sufficient attention to the investigation.

In this country the Seybert commission has made extensive investigations, the results of which are presented in a report, in which they have taken up the various acts performed by spiritualistic mediums much in detail. They have detected the frauds of slate writing, of raps, of table tippings, control of the mediums by the spirits, and of materialization.

While as a committee they have not concluded their investigations, I will give the conclusion reached by one of their number, George S. Fullerton, secretary of the commission. In an appendix to the report he says that he was certainly in a full receptive attitude toward the phenomena which was supported by apparently such strong testimony, and then follows: "I have been forced to the conclusion that spiritualism, so far, at least, as it has shown itself before me, presents the melancholy spectacle of gross fraud, perpetrated upon an uncritical portion of the community; that the testimony of such persons as to what they see is almost valueless if they are habitually as inaccurate as they have been at the séances at which I have been present with them. My opinion was not based exclusively upon what I have seen and recorded in my work with my colleagues, but also upon observations made at various times in a private capacity, and there is but one conclusion to be appended to them all."

A REMEDY FOR NEURALGIA.—It is claimed that a few drops of the following: Eau de cologne, ether, chloroform, aa ℥iij, poured on a handkerchief previously wetted with cold water, and placed on the seat of a neuralgic pain, gives instantaneous relief. It is also very efficacious for nervous headache. A burning sensation is felt at first, but quickly disappears.—*Medical Record.*

THE TREATMENT OF LUPUS BY INJECTIONS OF CORROSIVE SUBLIMATE.—Dr. Tansini narrates the treatment of a case of lupus of the nose and face by means of repeated injections of corrosive sublimate. He began with a weak solution corrosive sublimate one to 200. This produced no reaction of any kind. A stronger solution, one to 100, was then used. This produced some tumefaction and edema in the neighborhood of the punctures, and slight suppuration in some of them. Some fourteen or fifteen injections of a few drops were practiced. Improvement soon became marked, and eventually all traces of the disease disappeared, the only marks left being those of the punctures in which suppuration had taken place. Dr. Tansini was led to try these injections by the following considerations: (1) That lupus is a form of tubercle; (2) that the bacilli are few and have no tendency to diffuse themselves; (3) that corrosive sublimate has proved certainly destructive to bacilli. He claims advantages for this method on account of lessened pain and disturbance and superior cosmetic results.—*Gaz. degli Osp.—Medical Herald.*

THE ACTUAL CAUTERY FOR SOME NERVOUS DISORDERS.—Dr. T. J. Hutton, in the *Medical Register*, June 18, 1887, reports the successful employment of the actual cautery in a number of troublesome conditions. He speaks of his paper as a contribution to the literature of harsh treatment. One of his patients, aged forty-five, had within a brief period suffered the loss of husband, children and means. Under this profound shock she sat motionless and dazed, and was apparently drifting into imbecility or cerebral softening. The actual cautery was applied to the spine, and the result was a speedy cure. In the early and middle stages of self-abuse, before the mind becomes besotted and embruted, Dr. Hutton thinks the cautery produces a profound impression on the entire nervous system, and aids in restoring the power of self-control. He obtained good results from the cautery in two such instances. In impotence he had also seen it do good. A man, aged forty-eight, who had practiced self-abuse when a boy, became impotent. He had quit his home and family, and repeatedly threatened self-destruction. One application of the cautery, supplemented by galvanism, coca and damiana, restored him to health and home.—*Med. and Surg. Reporter.*

The Medical Press

OF WESTERN NEW YORK.

Published by THE MEDICAL PRESS ASSOCIATION of Western New York.

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WITH THE ASSISTANCE OF

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Subscription price: $2.00 per Annum.

All business communications should be addressed to DR. JULIUS POHLMAN, Business Manager Buffalo Library Building; all others to the Editor, 510 Delaware Avenue.

S. Cecil Stanton, LONDON AGENT, 17 Southampton Row, London, W. C.

BUFFALO, N. Y., AUGUST, 1888.

LOCALIZATION OF CEREBRAL FUNCTIONS AND LESIONS.

During the session of the Seventh Congress for Internal Medicine, at Wiesbaden, Dr. Nothnagel delivered an address on the "Localization of Brain Diseases." A perusal of a reprint of this discussion reveals much of interest and value. Early in his remarks Dr. Nothnagel spoke of the labors of Boulliard, Broca, Flourens, Mynert, Hitzig and Fritsch in the field of function—and disease—localization in the brain. He characterized their work as explorations into an hitherto unknown district.

The premises upon which our conclusions must be based are to be taken from bed-side and mortuary observations. Entering first into the discussion of lesions causing disturbance of the sight sense, the speaker summarized those symptoms of central origin as follows: (1) Hemianopsia; (2) total blindness; (3) disturbance of the color sense; (4) intellectual blindness (*Seelenblindheit*); (5) subjective troubles of light perception.

In explanation it was stated that by hemianopsia was meant blindness in lateral homonymous sight fields. Total blindness was but a double hemianopsia, progressed to complete loss of sight. In intellectual blindness the patient is capable of receiving simple optical impressions; in other words, there is perfection of sight mechanism, but there is no mental appreciation of the retinal impression. The patient is no longer able to comprehend the significance of such

impressions. The optical memory is obliterated. Combined with earlier clinical facts there are already enough *post-mortem* observations to give a possible conclusion that these vision perversions (cortical in origin) are usually united with disease of the occipital lobes. Indeed, they are confined entirely, the speaker believed, to these lobes. Previous clinical experience also permits the assumption that, in man, continued (cortical) hemianopsia is accompanied by disease in the cortex of the occipital lobe. Cortical disease elsewhere is not accompanied by lasting hemianopsia. Observations in which this does not seem to be the case may be explained by assuming that there is involvement of the internal capsule. From investigation of all available material it was held that the optical perception center is essentially situated in the cuneus and first occipital convolutions. In no way is the health of the entire surface of the occipital lobe necessary for perfection of vision, but rather it is limited to a more or less circumscribed spot. The records of four cases exist in which hemianopsia continued during a year, and on *post-mortem* examination a narrow limited lesion of the cuneus was found. Seguin claims that cortical hemianopsia is always produced by disease of the cuneus. To this Dr. Nothnagel assents, but would add, from conclusions drawn from experience and observation, also of the first occipital convolution. In widespread disease of the occipital cortex, if hemianopsia be coexistant, it will be found that the cuneus and first occipital convolutions are implicated. If otherwise, there will be no hemianopsia. A series of observations, tending to controvert this exact localization, is recorded, in which it was found that there was disease of the second and third occipital convolutions, fusiform and lingual lobes, with a normal condition of the cuneus and first occipital convolutions, with a contemporaneous hemianopsia. May not this series be explained on the hypothesis that the medulla beneath the two last mentioned spots was involved, with destruction of communicating fibers going to and from the same? The central lobes exhibit a tolerable constancy in their boundaries and limitations, while the contained centers (the motor innervation of the extremities and facial and hypoglossal nerves) are correspondingly invariable. The conformation of the occipital cortex is found to undergo great (comparatively) variation. May not this

mutability induce similar variance of localization of centers seated in such changeable tissues? If this conception be true, it would help to explain many cases whose puzzling facts have long helped to retard the progress of certain localization. The cause of intellectual blindness is also localized in disease of the cortex of the occipital lobes; but how is it that in one case where disease of the occipital cortex exists we find hemianopsia, while in another, with similar changes, we have intellectual blindness? This might be charged to a difference in the depth of the destruction; a superficial extension producing the former, a deeper disease the lattter. Dr. Nothnagel believes that this is not the case, but that the cause of intellectual blindness is destruction of the second and third occipital convolutions.

As a whole the question of localization in the occipital cortex resolves itself as follows: 1. The cuneus and first occipital convolutions contain the optical perception center. Their one-sided lesions engender hemianopsia; their double-sided, complete blindness. 2. The remaining occipital cortex contains the optical memory; its lesions produce intellectual blindness. Whether the optical memory field covers but one portion of this area, and which one, is still an unanswered question. 3. If on one side the cuneus, the first occipital and the remaining occipital convolutions are softened, while on the other the occipital cortex, exclusive of the cuneus and first convolutions, on the first side a hemianopsia is developed, on the other side intellectual blindness.

Touching upon the question of central motor paralysis it was remarked that the upper and lower extremities, the facial and the hypoglossal nerves, could be affected either alone or simultaneously. Paralyses of other motor nerves have been questioned, but the speaker believed that every voluntary muscle could be cortically paralyzed. Motor paralyses are due to lesions of the central gyri and of the paracentral lobe. Most of the lower part of the *gyrus centralis* is given up to the cortical field for the facial and the hypoglossal nerves; some of the middle to that for the upper extremity; while the greater part of the middle portion contains the cortical field for the lower extremity. It appears that from lesions of the paracentral lobe proceeds paralysis of both extremities. It was

held by the lecturer that the cortical field for motor innervation of the above-named extremities and nerves is seated exclusively in the *gyrus centralis* and *lobus paracentralis.* He did not agree at all with those who included the so-called relative fields of the lower part of the frontal convolutions and the frontal parts of the temporal convolutions.

The data on which this theory rested were obtained mainly from clinico-anatomical observations on cases of so-called cortical monoplegia, isolated continuous paralysis of the facial and the hypoglossal nerves, and of the extremities, especially the upper. Up to this time such cases have not been noted when there was not a lesion of the cortex of the central gyri. And so, also, have the convulsions limited to the muscles supplied by the nerves mentioned, and to the extremities, only been seen to exist contemporaneously with a lesion of the same cortical parts. Dr. Nothnagel had, during the past eight years, conjecturally suggested that the cortical field for the functions, which we group clinically under the name of the muscle sense, is situated in the parietal lobes. The amount of material contributed to date on this subject is not sufficient to warrant drawing the line more closely. Clear cases of this sort, that is to say cases of isolated paralysis of the muscle sense without motor complications, are rare. Their importance is much enhanced by a series of other cases, in which, with other troubles, if the muscle sense was involved, the parietal lobes were also softened. A true ataxia of the extremities can follow disease of the parietal lobes without motor paralysis, and from disease of the central convolutions a clear motor paralysis can proceed without loss of muscle sense.

It is firmly established that disease of the occipital, temporal, and greater part of the frontal cortex is not at all concerned in the production of troubles of skin sensibility. If anomalies of skin sensibility continue, it is frequently found that the central convolutions, with the paracentral lobes, the parietal convolutions, and, perhaps, also the posterior portions of the frontal convolutions, are involved. However, it appeared to the speaker not yet certainly settled whether lesions of those cortical parts, which occasion motor paralysis, also induce troubles of skin sensibility, or if the last are not more exclusively connected with changes in the parietal cortex.

Turning to some general questions of interest the speaker alluded to the query often broached, Are the so-called cortical troubles really engendered by diseases of the cortex, or more often through lesions of the underlying medulla? In other words, if a portion of the cortex is removed, does it contain groups of ganglionic cells or transmitting fibers alone, or both? Practically this distinction has no significance, because actually both groups of ganglionic cells and paths of transmission suffer with one another. If disease of an extended area of the roof of the third ventricle can cause paralysis of efferent nerves passing in close proximity, it is a simple physiological analogue that disease of circumscribed groups of cortical ganglionic cells, whose function has been determined once for all, can cause functional troubles in other connected groups. We can, therefore, readily conceive that the amount of damage existing cannot be diagnosed exactly, but only approximately. Human pathology proves that the localization of volitional sensations, *e. g.*, the wish to move an arm, is not to be placed with those centers that cause such movements. The possibility to execute the wish goes hand in hand with intactness of a quite limited part of the cortex, but this in no way teaches that in these same parts a psycho-motor center for the purely volitional portion of the act is also placed. For example, a patient may be suffering from comple cortical paralysis, as of the arm, and may still have the desire to move the extremity. In other words, the volitional division of the act is distinct from the motor.

Again, a patient may become blind through destruction of certain cortical tracts. In such a case, if the psychical portion of seeing were united with the physical part, all optical memories and ideas received previously would be annihilated simultaneously with the loss of ability to comprehend retinal impressions; whereas, though we know that the patient is no longer capable of comprehending new light impressions, we also know that all previous optical images and conceptions remain clear and distinct.

In recapitulation Dr. Nothnagel said: That there are in man cortical paralyses caused through and always by the same circumscribed localized cortical lesions; that, all things being equal, with these paralyses the possibility remains of abstract education of the will in relation to motor innervation, and, further, that the cortical field for

the memory of motor ideas, so to speak, is found in the parietal lobe together with the central field of simple motor translations. Destruction of the central convolutions determines simple, continued paralysis; destruction of the parietal convolutions causes intellectual paralysis. When, for example, the patient can move his arm, but the motion is an unknown quantity to him, it is purely reflex.

LIVER-TISSUE EMBOLI.

The dislodgment of fragments of liver-tissue as the result of laceration of that organ, and their passage through the hepatic vein and vena cava up to the right side of the heart, constitute a very rare form of embolism of which but few cases are on record. In the *Deutsches Archiv für Klinische Medicin* for April are recorded three cases of this character,—two of them by Schmorl of Leipzig.

In a railway accident a man sustained a crushing injury of the liver. At the autopsy the right auricle was found to contain a brownish-red mass which was seen to be a piece of liver. In the right ventricle was a similar but larger piece. Other smaller fragments were found in the right side of the heart. The foramen ovale was closed and the left ventricle contained a piece of liver-tissue the size of a bean. The whole pulmonary vascular system contained emboli of hepatic-tissue; the main branch to the right lung was plugged, and both lungs were studded, as often happens after injury to the liver, with fat-emboli. Other hepatic emboli were found in remote parts of the body. Of course these particles reached the distant organs through the patulous foramen ovale. (A case of kindred interest is that recorded in one of Cohnheim's lectures, in which an embolus from the iliac vein passed through an open ovale foramen and plugged the Sylvian artery, in a woman of middle age.)

Schmorl's second case was that of a man who was taken up dead after falling a great distance. The liver was ruptured, as were the endocardium and the anterior wall of the left ventricle. The right side of the heart contained fragments of liver tissue, and various branches of the pulmonary artery were plugged. The pulmonary capillaries contained liver cells.

Von Zenker reports a case of gun-shot wound of the liver and heart with a similar condition of the heart and lungs. And Jürgens

and Recklinghausen have likewise put on record similar cases of cardiac and pulmonary disturbance. Jürgens, indeed, has reported several cases of delirium tremens with extensive fat-embolism of the lungs, spleen and kidneys, in which liver cells were found in the right heart and pulmonary capillaries.

While these cases are by no means common, the condition will be more frequently detected if systemically searched for. It has, moreover, beside a pathological interest, a decided medico-legal importance.

MAGNETIC HEALERS AND OTHER QUACKS AND THE PUBLIC PRESS.

The art of healing by "laying-on of hands" is nearly as old as history, and through all these thousands of years its practice has survived up to date, with few, if any, modifications. In spite of our boasted civilization there are, to-day, thousands upon thousands of apparantly intelligent people who believe in the "animal magnetism" of the healer—in a mysterious power which so fills him that he is able to impart some of it to his credulous dupes; everywhere we find men and women who are convinced that at least some of these charlatans can, by some unknown mysterious process, make their own "superabundant vital force" (whatever that may mean) ooze out of their finger tips into the body of the sick, thereby curing heart disease or blindness, paralysis or deformity of the most chronic form. Mysticism and superstition have been inborn and inbred into the human race for so long a time that it will take more than one century to eradicate its seeds; and when, at a spiritualistic trick show, we are treated to the spectacle of finding an intelligent man testifying with a perfectly blank expression on his face that some mysterious power must be at work in the phenomena exhibited, we can excuse the people at large for clinging to similar mysterious manifestations.

Some of the blame for this state of things rests with the daily press. A "great magnetic healer" arrives in town, whose pockets are well filled with the necessary shekels, and every newspaper is willing to publish long columns of reports of his wonderful cures as advertisements. In this the proceedings do not differ from that pursued by the patent medicine vendor, and must be considered perfectly legitimate from a newspaper point of view; but when the same

papers give among their reading columns of their own accord lengthy descriptions of how the lame were made to walk and the blind could see after even only one treatment by the great "professor," then such notices add a wonderful weight and force to the advertisement, and give to the whole scheme an air of truthfulness that carries conviction even to some of the incredulous, not to mention those who are not only willing but very desirous of being humbugged. The fact that the same papers most readily and willingly aid afterwards in the exposure of the swindle does not repair the damage already done; for, unlike the physician, our magnetic healer takes at least a part of his fee in advance, and does not wait for months or even years upon the pleasure of his patient for payment of his bill; for, as a rule, as soon as a part is thus collected, the "professor" leaves very abruptly for parts unknown, without sending his future address to his patients.

Such advertisements will find their way into the press, and it would be folly to say that reputable papers should not print them because the business aspect will, at least for some time to come, precede purely ethical considerations. But it seems that the writing up of these cures, if such a thing is considered necessary, could by the managers of the press be relegated to some reputable physician instead of the ordinary reporter; a report thus written would form a most wholesome check, and even if not absolutely effectual it would exonerate the press from the blame which can now be justly laid at its door. Certainly no difficulty would be experienced in finding a physician willing and able to undertake such a task.

And that brings up another point worthy of discussion: In what respects does the magnetic healer, who uses no medicines and cures simply by the laying-on of hands, differ from the "Christian scientist" and the "faith curer"? Are they any more than mere varieties of one form? And if they are *not*, what right have the officers of the county society to interfere with one more than with the other? Are the censors obliged to do the detective work of the city and find out how much money is made by, and under what promises it is paid to the magnetic healer, in order to protect the "dear public"? It seems that the charge of obtaining money under false pretenses by any one who is not a physician, and who does not claim to be one,

and who dispenses no medicine, should come properly before a criminal court, and not before the censors of the county society. Faith curers and Christian scientists have grown fat in our good city without disturbance from the censors, presumably because they are powerless in the matter. One obtains his money as much under false pretenses as the other, from the standpoint of the physician. Certainly every member of the profession has not only the right, but the obligation to expose any such fraudulent transactions; the question is merely, Must he do that as a private individual, or must he do it officially in the name of the County Medical Society? The subject appears open for discussion. J. P.

THE ETHICS OF HOSPITAL RIVALRY.

There is a literary chestnut of venerated antiquity which asserts that there is honor even among thieves. We would that a semblance of this honor prevailed among a few men interested in a certain somewhat notorious institution of this city. Two years ago the Fitch Accident Hospital was organized and conducted in the joint interests of the Charity Organization Society and the General Hospital. Such a hospital was contemplated as a distinct feature of the original Fitch trust; was not started to disturb any existing institution; was modestly begun and quietly, becomingly and most humanely conducted. It had the benefit of the skillful nursing for which the General Hospital was renowned, and in numerous public calamities, during its short career, it has rendered emergency service of the greatest value; *e. g.*, during and after the Richmond Hotel fire.

In furtherance of its aims it printed and distributed in various factories, depots, etc., modest cards informing the public how its ambulance could be placed at the instant service of the injured. A similar card had been similarly distributed by the General Hospital in those parts of the city naturally tributary to it.

Not very long after this a rival hospital placarded a poster in public places, not only advertising itself as such, but parading in an offensive and very unethical way the names of its visiting and house staff, all after a fashion to quite shock the framers of the code. Nor did they stop here. Soon began a systematic series of depredations upon the cards of their more modest opponents, who could

not bring themselves to compete with circus performers in size of type and publicity of names. Business offices were invaded, the quiet card was rudely torn down and one of their own dishonestly substituted. But this was done too often and brought detection and exposure. Later the tactics were so far changed that, while the Fitch or the General Hospital cards were allowed to remain, the telephone number was erased and that of the rival-with-the-big-staff written in. And more lately the system has been so far amended that now a little paster with the wrong telephone number is adroitly stuck over the correct and authentic one.

We cannot believe that all the gentlemen interested in this emergency-hospital-with-the-overcrowded-staff could have lent themselves to this scheme; nevertheless the method, and those who practice it, bring upon themselves a contempt of which several of the before-mentioned staff might easily purge themselves if they would—and this we call upon them to do in the interest of that decency and honesty which have been so sadly outraged. Otherwise we might retort upon them by quoting the expression used by one of their own mental acrobats in their organ of September, 1883;—since they have "chosen unpopular professional associations" they "must bear up under the odium and prejudice to which such associations give rise."

* * *

The many friends and acquaintances of Dr. Conrad Diehl, of this city, have been called upon to sympathize deeply with him in the terrible bereavement which has recently befallen him in the loss of his wife at sea, while nearing the American coast on their homeward-bound voyage. Mrs. Diehl was a singularly talented and gifted lady, who had made a host of friends in her adopted country, and the vacancy in her home and circle made by her sad and untimely loss will never be filled. At the July meeting of the Buffalo Medical and Surgical Association an appropriate resolution of condolence was unanimously adopted and formally transmitted to Dr. Diehl.

* * *

Our esteemed contemporary, *The Independent Practitioner*, which has been edited for six years by Dr. W. C. Barrett, of this city, has passed into the hands of a syndicate of dentists, and will

hereafter be published and edited in Philadelphia. Its future editor is Dr. W. X. Sudduth.

The *Practitioner* has been always ably edited and thoroughly progressive, and in every sense a credit to Buffalo. We the more regret, therefore, that Dr. Barrett has found his professional cares too exacting to permit his working in the double capacity of an active professional man and busy editor.

* * *

Dr. MacEwen, of Glasgow, perhaps the most eminent of contemporary Scotch surgeons, died recently at the early age of 40. He was best known for his researches on the physiology, pathology and operative surgery of the bones, and his work in this field alone will carry his name far into the surgical literature of the future.

Dr. J. Milner Fothergill, whose many writings have fascinated readers on two continents, also died recently.

* * *

The commencement exercises of the Buffalo Training School for Nurses were held at the First Presbyterian Church June 26, 1888. A large and well-trained class was graduated.

The feature of the evening was the address by Jas. Frazer Gluck, Esq. This has been printed in neat form for private distribution, and forms a handsome souvenir of the occasion. A leisurely reading only confirms the impression made by its delivery, that a more masterly and able paper of its kind is not likely to be ever heard in Buffalo till Mr. Gluck again favors the school.

* * *

Merck's Bulletin is the title of a little monthly bulletin, issued by the well-known Darmstadt firm of E. Merck from their New York house. It is published in neat form, and is devoted solely to giving a summary of the properties, chemical and therapeutical, of the new chemicals and drugs which are so frequently appearing. It is in no sense an advertising medium, but is purely scientific, statistic and neutral, and in this respect fills a vacant space in current literature. It may be had for the low price of fifty cents a year by addressing E. Merck, 73 William Street, New York, and will prove a profitable investment of a trifling sum.

Bill Nye, the professional humorist, was invited to be present and speak at the recent annual dinner of The Indiana State Medical Society. His regrets came by wire in this shape:

"Sorry I cannot be there. May you and your associates continue to take life easily, as heretofore."

Selections.

The Condition of the Larynx in Whooping-Cough.—Von Herff, while suffering from an attack of pertussis, made a series of examinations upon his own larynx. The results were as follows: Throughout the whole course of the illness a slight degree of inflammation of the mucous membrane of the respiratory tract was seen to exist, extending from the posterior nares to the bifurcation of the trachea. In the earlier stages this inflammation took the form of a slight catarrh, but during the spasmodic stage it was very intense and widespread, and only slowly disappeared during convalescence. The intensity of this inflammation varied in different parts of the respiratory tract. It was especially marked over the mucous membrane covering the arytenoid cartileges, and the cartileges of Santorini and Wrisberg, but was greatest over the posterior walls of the larynx, between the vocal cords, and on the under surfaces of the epiglottis. The other parts of the larynx remained unaffected, the vocal cords being quite intact. The hyperæmia extended into the trachea, and could be distinctly seen as far down as the bifurcation. During every paroxysm a small mass of mucus could be seen lying on the posterior wall of the larynx, on a level with the glottis, and when this was removed the attack instantly ceased. When this part of the larynx was irritated by a sound, an attack of spasmodic coughing was produced, simulating in every way a spasm of whooping-cough. Irritation of the under surface of the epiglottis had a similar, though less marked, effect. On the other hand, stimulation of other parts of the larynx was entirely without effect in producing the characteristic paroxysms of coughing. Irritation of the mucous membrane in the inter-arytenoid region seems to be especially connected with the characteristic spasms of whooping-cough.—*Medical Record, March 5, 1887.*

Carbolate of Camphor.—A new compound is mentioned in the *Therapeutic Gazette* to which is given the name of carbolate of camphor, and which appears to possess the antiseptic properties of carbolic acid, and the carminative properties of camphor, without the cauterizing properties of the former. It is prepared by dissolving camphor in a 95 per cent. solution of carbolic acid to saturation. The carbolic acid will dissolve about three times its weight of camphor, and the product is a thin, clear, oleaginous mixture, having a strong odor of camphor, and a very faint odor of carbolic acid. To the taste it has a strong, and, at first, slightly pungent flavor of camphor, but no flavor of the acid. It dissolves readily in vegetable oils and in vaseline, mixes with sulphuric ether, dissolves salicylic acid, cocaine, iodoform, and, in the proportion of forty grains to one ounce, disguises the odor of the latter. Taken internally, in ten-drop doses administered in capsules, it produces a sensation of warmth in the stomach which is not unpleasant, and which continues for an hour or two. When applied to the skin it produces a slightly warm sensation for a few moments, and when applied to an abraded surface it smarts for a moment and then all pain ceases. Injected hypodermically it causes stinging, quickly followed by anæsthesia. When mixed with an equal quantity of cotton-seed oil, and applied to a fresh wound on gauze or cotton, and kept well covered, no suppuration follows, nor do vesication or pain.—*American Druggist.*

The Bergeon Fizzle.—The gaseous enemata bubble has at last been pricked, and we are glad to note the fact. All these sensational and spasmodic efforts to vaunt a "new cure" for that dread scourge, "consumption," are not only futile—they are positively harmful and at the same time immeasurably cruel. They cause the poor sufferers to indulge false hopes of speedy recovery, whereas every year more emphatically demonstrates that the relief and "cure" of this class of patients must be sought through *increased nutrition* and agencies which cause the system to more perfectly assimilate and appropriate the food ingested. There is no other "cure" possible. On this point the profession is coming to be a unit. At the last annual meeting of the Pennsylvania State Medical Society, at Bedford

Springs, Dr. W. F. Waugh, of Philadelphia, gave an able resumé of the evidence pro and con concerning gaseous enemata as a method of treating phthisis. He showed that five years before Bergeon made his sensational claims, an eminent and equally reliable French physician had published results obtained by causing his phthisical patients to inhale a mixture of carbonic acid and oxygen gases. These were even better than those reported by Bergeon. Dr. Waugh further showed that Bergeon, in his later experiments, rejected the sulphuretted hydrogen and relied wholly on carbon dioxide. Unquestionably this gas is to some extent decomposed in the system and liberates free oxygen; and we incline to the opinion that on this latter gas the good effects of the treatment depend. Oxygen is a vital supporter. It stimulates digestion, induces better assimilation, is a safe and powerful antiseptic. These properties have been practically overlooked. It behooves the profession to give more attention to the study of gases which have at least a rational basis for their claims as therapeutic aids rather than go to extremes in their own over-confidence in French novelties which are based on neither reason nor science.—*Medical Register.*

Fashions in Surgery.—M. Verneuil, the eminent surgeon of the Paris Academy of Medicine, sets forth in one of his recent public addresses some of the changing methods or "fashions" which have characterized the history of surgery, instancing among other things the fact that in the eighteenth century every man who had fallen on his head and was suspected to have cracked his skull was trephined, and that during the wars at the end of the last century and the beginning of this every gunshot wound of the extremities was treated by amputation. He went on to say that, at the time when he entered the medical profession, tenotomy was the rage, every tendon, every ligament, every muscle in every region of the body was cut—squinting, stammering, spinal curvature, bandy legs, even deafness was supposed to be thus cured. We have, says M. Verneuil, trephined too much, tenotomized too much, resected too much, dilated too many strictures, excised the iris too often, operated a great deal too much in scraping old abscesses; in proof of this he argues that in a great country like France, with 37,000,000 inhabitants, the operation

of transfusion is now performed not more than half a dozen times, and that of trephining not more than a dozen times in a year; that in every country nowadays the spinal and lingual muscles of the humpbacked and stammering are left alone; that in England, where resection was common, it is now hardly ever performed, and the eye surgeons now nearly all agree in leaving the iris undisturbed.

Benzoin in the Treatment of Whooping-Cough.—M. Moinard, of the Lenon Hospital, has adopted insufflations by the nose of antiseptic powders, tannin, boric acid, iodoform, benzoin; and to this latter he gives the preference. It was given in fifty cases, obtaining a rapid diminution of the paroxysms. One case was very singular. A child, aged six months, had been ill for six weeks, having about forty fits a day. Insufflation of benzoin was used, and the child was well in a week. The following formula is used: Benzoin in powder ʒi; salicylate of bismuth ʒi; sulphate of quinine xx grs. A little of this powder is inserted into the end of an India-rubber tube and introduced into the nostril; the other end of the tube is taken into the mouth of the attendant and blown through. The powder falls on the desired spot, and the same operation is performed on the other side. From three to five insufflations are made in the day. No danger or pain attends this method of treatment, and the children offer very little resistance.—*Medical Press.*

Surgical Scarlet Fever.—The cases of so-called "surgical scarlet fever" fall under one of four categories. 1. Cases of congestive erythema, due to vaso-motor disturbance. 2. Toxic erythema, like the rashes due to drugs, and depending upon absorption of products of tissue destructions. 3. Septic or pyæmic rashes, as the outcome of general septic infection, and probably due to capillary embolism of micro-organisms. 4. True scarlatina infections, as verified by one or other of the concomitant symptoms,—angina, swelling of submaxillary glands, nephritis, and desquamation. To call scarlet fever *surgical* the infection must occur at the wound, and the eruption spread from there over the body. The author says that such cases are rare, and he reports only two cases. One

case had been treated for rupture of the urethra with extravasation of urine. The rash appeared on the ninth day and spread from the wound over the abdomen and buttocks. It was accompanied by sore throat, and disappeared in a week; but the patient died from cardiac degeneration and acute nephritis. The other case was one of fracture of both femora, and a wound extending into the rectum; was attacked four days after the former case, and recovered with marked desquamation.—Hoffa (*Volkmann Samm.*).

Tumors of the Umbilicus.—Villar, of Paris, has recently published a monograph upon this subject. He divides the benign growths into angioma lymphocele, granuloma, adenoma, sebaceous and dermoid cysts, fibro-papilloma, and myxoma. Angioma is rare; a few cases of erectile tumors are on record, all being congenital. Granuloma, or umbilical fungosity, is seen in new-born children, but is not congenital. It appears a few days after the cord falls off as a red fleshy mass, bleeding readily; it keeps up an irritating discharge, which produces eczema. It grows slowly for months. It should be removed by scissors or ligature. Cases of recurrence as late as the fourth year have been seen. Adenoma is always congenital; in gross appearance it resembles granuloma, but histologically is made up of tissue closely resembling the mucous membrane of the stomach, and gastric juice containing pepsine has been secreted. Eleven such cases are recorded. Sebaceous tumors and dermoid cysts are rare, and are not to be confounded with sebaceous secretions external to the epidermis.—*Lancet, July 9, 1887.—Medical Herald.*

A New Discovery in Alkaloidal Chemistry.—In an article in the *Pharmaceutische Zeitung*, Bombelon makes an announcement of considerable interest at the present time. Under the name of *somniferin* he describes a new morphin-ether, recently discovered by himself, and claimed to be superior to morphine as a therapeutic agent, since it can be used in smaller doses, and has no bad sequelæ. It is further claimed that the heart remains uninfluenced by the agent. Physically, the new chemical is a crystalline substance of glass-like lucidity. The method of preparation has not yet been

made public, but Bombelon states that it is easily prepared by a cold process in 100-pound (50 kilograms) masses. The author announces still greater discoveries in the same direction, and states that he has succeeded in preparing morphin-eserin (which contracts the pupils painlessly), chinin-tropin, and morphin-tropin. These new bodies, he declares, can by this process be combined in countless ways, and that every alkaloid may be anchored to another or others in such manner as to produce new bodies possessing the combined physiological and chemical attributes of the constituent alkaloids, and in many instances entirely new characteristics. Further information is promised as soon as the physiological experiments now in progress are completed.—*Pacific Record.*

The Acadèmie de Mèdicine is about to discuss in all of its interesting details, the terrible effects of alcohol upon the human race, and the best way of lessening them. They have discovered that the chief cause of the toxic power of absinthe lies in the fact that the alcohol used in its manufacture is of the most outrageous quality, containing the residuum following the distillation of alcohols intended for use in liquors whose odor is less obscured by essential oils. The Acadèmie is all the more able to enter upon its consideration of alcohol from the fact that it has just saved the human race from total extinction by settling upon a series of laws for the prevention of certain evils for which the modern medical man prescribes hydrargyri iodidum veride and kali iodatum. Among the preventive measures decided upon is a series of conferences in which, according to *L' Union Médicale* of April 7, "The counselor will talk to the young soldier like the father of a family to his own son." The pessimist will hardly fail to smile when he reads further on that even this measure will "hardly prevent sailors from precipitating themselves into the *Rue de Siam* when they arrive at Brest." Perhaps the whole matter had best be turned over to the pharmacists, as the only persons competent to discuss the proper means of preventing "precipitation."—*Paris corr. Pharmacist's Record.*

Would not *red precipitate* accomplish the same end more cheaply and efficiently?—(Ed.)

House-Flies as Disseminators of Tuberculosis.—MM. Spillmann and Haushalter have sent a communication to the French Academy of Science to the effect that the common house-fly is a great factor in the spread of tuberculosis. It feeds on tuberculous sputum with avidity, and may be easily proved to be a bearer of the contagious or infectious principle. Indeed, the bacilli may be found in abundance in the abdominal cavities of flies. The excrement of flies also contains them, and we know well how widely they may be distributed from this source. Food, drinking water and raw surfaces may be alike easily infected. A very humble source for the origin of disease, but one not to be neglected, is thus pointed out.

Book Reviews.

Reference Handbook of the Medical Sciences. Edited by Albert H. Buck, M. D. Volume VI. Pages 778. William Wood & Co. New York: 1888. Buffalo: J. H. Matteson.

The sixth volume of this most excellent encyclopædic handbook has recently appeared, and among the contributors we notice the names especially of Atkinson, Blodgett, Bridge, Bulkley, Curtis, Davis, Ethridge, Flint, Fowler, Hamilton, Harris, Minot, Parven, Prudden, Senn, Stephen Smith, Starr, Witthaus and numerous others almost equally widely known. In the profusion and excellence of its illustrations, in the variety and accuracy of its contents, the volume is in no sense behind any of its predecessors. Among other articles of particular value, we would mention those on the Prostate by Cabot; on Ptomaïnes by Witthaus; on Rabies by Blodgett; on Reptiles by Yarrow of the Smithsonian Institute; on Resections by Yale; on Rickets by Stedman; on the Skull by Senn; on Sewerage by Oldright; on Smallpox by Foster; on Spectacles by Green; various articles on the Spinal Cord by different writters; on the Stomach by W. H. Flint; and many others which we cannot notice and give by name. As the various volumes of this system appear, they confirm in our mind the impression made by the appearance of the first, that it is the finest work of its character in the English language.

THE APPLIED ANATOMY OF THE NERVOUS SYSTEM. By Ambrose L. Ranney, A. M., M. D. Second Edition, rewritten, enlarged and profusely illustrated. Pages 791. Price $5.00. D. Appelton & Co. New York: 1888. Buffalo: Otto Ulbrich.

The first edition of this work appeared a number of years ago, in much smaller dress, but was kindly received and found a place of its own in medical literature. Prompted by many favorable notices and its ready sale, the author has been tempted to enlarge its scope and plan and to issue a second edition. The changes have been so pronounced and so radical, that it may almost be said to be a new work; that portion devoted to the brain has been entirely rewritten, and now comprises the latest discoveries in its anatomy and physiology; also the chapters on the cranial nerves and the spinal cord have been enlarged and their value enhanced in the same way. Many new illustrations have been inserted, and a number of new diagrams have been designed by the author which illustrate the text in a most felicitous manner. The work, as it appears, furnishes to the student and clinician a most valuable guide of the anatomy and physiology of the nervous system. The chapters on cerebral localization, the descriptions of the various portions of the brain, the diagnostic aids which are scattered profusely throughout the volume, give it a value which is not possessed by any similar work with which we are familiar. While not himself a profound neurologist nor investigator, the author has shown an admirable capability in arranging and systematizing the observations of others, and of putting them in such shape that they may be made readily available. We commend the work as a vast improvement on his first edition, and have for it only words of praise.

INTUBATION OF THE LARYNX. By F. E. Waxham, M. D., of Chicago. Pages 110. Chase, Truax & Co. Chicago: 1888.

While the subject of intubation has received frequent attention in current medical literature, this is the first monograph dedicated to the subject. Few operations in the history of medicine have exited more widespread interest than this, and scarcely any of equal simplicity give the same amount of relief. The performance of intubation is to the neophyte one of considerable difficulty, while by the expert it is performed with a rapidity and dexterity which are almost astonishing. This little work of Dr. Waxham takes up,

first, the history of the operation; then the anatomy of the larynx; then the directions for performing intubation; and these chapters are followed by one dedicated to the after treatment. The balance of the book is taken up with a record of cases, of which the author has a very large number. It may be asserted that an undue proportion of space is given to a somewhat detailed relation of the author's cases, which might almost as well have been condensed into a table similar to that which he gives of O'Dwyer's cases. The percentage of recoveries in Waxham's cases, taking the average of all ages, was twenty-seven and one-third. This percentage is just about the same as that which the reviewer has reported in an article in this journal for September, 1887, page 383. While the author was collecting cases there were many others scattered through literature which he might easily have found had he chosen to include them in the work. A concluding chapter on the comparative value of intubation and tracheotomy is one worth reading and shows the merits of the new operation,—merits which greater familiarity and more extensive practice of the operation will the more abundantly demonstrate.

THE PATHOLOGY, DIAGNOSIS AND TREATMENT OF DISEASES OF WOMEN. By Graily Hewitt, M. D., London, F. R. C. P. Edited by H. Marion-Sims, M. D. Three vols. Pp. 1040. Cloth. E. B. Treat. New York: 1887.

Ten years have elapsed since the third edition of this work was published. This, the fourth, comes as an American edition, edited by H. Marion-Sims of New York, who very apologetically writes that he was "requested" to do so, and that "*having known him* (the author) *from my early boyhood, I accepted* the compliment and determined to give the book the widest circulation possible." This coming from the editor may be construed as extreme modesty, but looks more like a candid confession as to the call for a new edition of the work. Still it has merits, and the greater part of it has been rewritten. Much space is given to the consideration of the mechanical production of many forms of uterine disease and the pathological changes produced by them. This is the author's great hobby; and though there is much truth in the theory, as proven by actual cases and quite general observation in special cases, he seems to have modified his opinion somewhat when he says that "alterations in the shape and position of the uterus are *rarely witnessed except* in

individuals whose general strength has become *seriously impaired* by a systemic and often a lengthened practice of taking little food"; "chronic starvation" he is now convinced is a most important factor in the production of these diseases. He insists on better nutrition as of essential importance in their successful treatment, which certainly is a strong and reasonable point, and inverts the line of reasoning from the local ailment as causing the general symptoms—so easy for specialists to adopt—to the general condition causing the local one. This edition also contains a collection of observations on hysteria and hystero-epilepsy, by which the author seems to prove quite satisfactorily that they always depend on flexion or malposition of the uterus, and not, as generally supposed, on ovarian disease. The vomiting of pregnancy is also shown to be due to, or at any rate to be associated with, flexion of the uterus, and many cases are reported proving the truth of the theory. Many illustrations have been added, and those figuring flexions and displacements of the uterus are drawn life size; so, too, the cuts of instruments employed for their treatment, thus rendering, it is thought, the descriptions and directions for treatment more explicit.

PTOMAINES AND LEUCOMAINES, OR THE PUTREFACTIVE AND PHYSIOLOGICAL ALKALOIDS. By Victor C. Vaughn, Ph.D., M. D., of the University of Michigan, and F. G. Novy, M. S. Pages 314. Lea Bros. & Co. Philadelphia: 1888. Price, $1.75.

Dr. Vaughn has for many years been known as an ardent student in this field of chemistry, and the results of his studies, as well as an extensive familiarity with its literature, are collated in the little work before us. The principal facts concerning the physiological and putrefactive alkaloids have been collected, arranged and systematized, and the whole placed in such concise and interesting shape that it forms a work of extreme value to every thinking medical man. The first chapter, devoted to a historical sketch of the subject, makes interesting reading, showing how, from a few isolated data, a science has been developed whose mystery may well constitute the life work of an expert chemist. The second chapter is devoted to the subject of foods containing poisonous ptomaïnes, including shellfish, sausage, canned meats, cheese and ice cream. Dr. Vaughn's researches on tyrotoxicon, which he has shown to be the active

ingredient in poisonous milk and ice cream, have already made him famous the world over, and a summary of his studies is included in this chapter. A chapter on the relation of ptomaïnes to disease is, in fact, an interesting presentation of the dispute concerning the relative merits of the germ-theory and the chemical-theory of disease. He has shown what is well known to pathologists, how easily the two apparently opposite theories can be reconciled. Most of the balance of the work is given up to the chemistry of the subject in its technological and physiological relations, although one of the concluding chapters on the pathological importance of the leucomaïnes is of very great and suggestive interest. We have often made the statement in public and private that our text-books of pathology would soon have to be rewritten in the light of the researches being made by the chemist. A perusal of this most valuable little work serves only to strengthen our conviction. It covers a subject of inestimable importance and covers it well, and should be in the hands of every medical man.

Transactions of the New York State Medical Association for the Year 1887. Edited by Dr. A. L. Carrol. Vol. 4. Pages 554. J. H. Vail & Co. New York.

The fourth volume of the transactions of this association rivals, in its attractiveness, those which have preceded it, and contains a number of valuable monographs and discussions. Three notable discussions were held during the session of the association: one, on the management of compound fractures of the anklejoint, introduced by Dr. Moore, of Rochester, in which Drs. Bryant, Hyde and Dennis participated; another, on typhoid fever, in which Drs. Janeway and Stockton took part; another, on placenta previa, which was shared in by Drs. Thomas, Luske, Taylor, and others only less favorably known. These discussions, which were of great value, are given in full, and the volume includes several memoirs, including one of Dr. Alonzo Clark with portrait, and of our own Dr. Rochester. It is issued in most attractive form, and is a credit to all concerned.

BOOKS RECEIVED.

From Geo. S. Davis, Detroit:
Diseases of the Male Urethra: F. N. Otis.

From D. Appleton & Co., New York:
Illustrated Encyclopædic Medical Dictionary. Vol. I.: F. P. Foster.

NOTICE.

In order to make The Medical Press of greater value to our readers, we offer to print, for not more than two insertions, three-line notices of wants, exchanges, practices for sale, etc., *free of charge.* Such notices should be received by the fifteenth of each month.

WANTS, EXCHANGES, &c.

Histological work of all kinds promptly done; *post-mortem* examinations, etc. For terms and information address Dr. H. G. Matzinger, 510 Delaware avenue.

Practice for Sale.—A good practice in a town of 2000 inhabitants. Poor health the reason for giving it up. Address, Dr. M. U. Campbell, Wolcott, N. Y.

To Exchange.—For other microscopic preparations. Mountings of nearly all the pathogenic bacteria. Also, cultivations of same in gelatine or agar-agar, for sale or exchange. Address the Editor.

In the *British Medical Journal* for July 30, 1887, Dr. J. Hutchinson reports that in seventy-five per cent. of "women of nervous temperament, in whom the nervous irritability reached its height at the menstrual period, where, along with the general malaise, there was a very decided pain in one or the other ovary, together with hemicrania," he secured relief after two or three days' treatment by the exhibition of fluid extract black willow bark in half-drachm doses three times a day. He has also given the drug in two cases of nocturnal emissions with marked benefit. The pollution ceased entirely while the drug was being taken, and for several months thereafter.

In the *London Lancet* for September 24, 1887, Dr. E. H. Fenwick, F. C. R. S., states that salix nigra is "a sexual sedative of decided value; useful in ovarian hyperæsthesia, also in prostatorrhœa, spermatorrhœa, excessive seminal emissions, and enforced continence."

In view of the above facts, Parke, Davis & Co. are supplying fluid extract black willow bark upon all orders for fluid extract salix nigra, or black willow, as there seems to be no question that this is the preparation desired.

The Medical Press
of Western New York.

Vol. III. SEPTEMBER, 1888. No. 9.

THE TREATMENT OF TWO CASES OF XANTHOMA (XANTHELASMA VITILIGOIDEA) BY THE METHOD OF ELECTROLYSIS.

By Ernest Wende, M. D.
Buffalo.

Case 1.—A married lady, brunette, native of this country, 63 years of age, in perfect general health, presented herself for the removal of xanthoma, whereby she might gain greater cosmetic improvement. The disfigurement was characterized by the formation of two sharply defined chamois-skin-like plaques, one about as large as a three-cent silver coin, occupying the right upper lid near the inner canthus, the other a trifle smaller, which was found almost in a similar position on the left lid. These symmetrical plaques were oval in outline, soft, smooth, and slightly raised over the skin in which they were imbedded.

Case 2.—A Jewess, brunette, married, aged 51, general health good; consulted me for a like purpose, differing however from the first case in that the tumors were of the nodular variety, instead of being flat. There were five in all, varying in size from a pin's head to a pea. Excepting the larger, which was seated on the side of the nose, they were situated on the lids.

Knowing that these new formations consisted mostly of fibrous tissue with a deposition of fat, I thought it desirable to destroy the former by the action of electrolysis, with the hope of causing a subsequent disappearance of the whole. For this purpose an electronegative needle, which was made of gold, was inserted laterally at various points into the neoplastic formations in a direction parallel to the outer surface, and the circuit closed by the ordinary sponge electrode (positive) which was moistened and held in the hand. A current of nine galvanic cells of a twenty-celled Waite & Bartlett

galvanic battery was passed through them. After one sitting, lasting twenty minutes, the xanthomatous plaques and nodules darkened in color, and soon dried into eschars. On the eighth day the crusts began to fall off, leaving the skin beneath somewhat reddened, which gradually faded to its normal aspect, perfectly smooth, with no trace of a cicatrix and no remaining vestige of the new growth.

As these "spots on the sun" usually occur about the canthi of the eyes, it is evident that the advantage gained by this mode of procedure over excision, the curette or caustics, is much greater in avoiding all possibility of the production of ectropion.

I believe the above to be a new application of electrolysis.

PECULIAR CONVULSIONS OF TRAUMATIC ORIGIN.

BY R. T. FRENCH, JR., M. D.
Buffalo, N. Y.

The following case came under the writer's observation, during a brief stay at the Rochester City Hospital, in the summer of 1887. It attracted considerable attention at the time on account of the obscurity of the symptoms and the marked divergence from any generally accepted type of disease. No definite diagnosis was made by the attending physicians, the complexity of the manifestations being so great that the case was regarded as one of those obscure forms of nervous affections that occasionally occur and baffle the efforts of the most skillful diagnostician.

J. V——, æt. 34, a native of Austria, had been admitted to the hospital the year before, giving the following history: The patient had served in the Austro-Prussian war, and in an engagement had received a severe blow on the head near the left parietal eminence. He was taken to the hospital at Vienna, where his skull was trephined (and, according to his story, a metal plate inserted). He made a good recovery, and some years later came to the United States. Here he secured a position on the railroad, and after some time became engineer of one of the fast express trains. During his connection with the railroad he figured in several accidents, and was once struck on the head but not seriously injured. He now began

to be subject to convulsive seizures, and having been therefore dismissed by the company, came to the hospital for treatment.

During the writer's acquaintance with the case the attacks occured with some regularity, every third day and at about eleven P. M. During the late afternoon and early evening the patient would complain of a severe and generalized headache, as well as a sense of constriction about the head. About an hour preceding the attack there would be a brief hemorrhage from both ears. The blood was bright and arterial in character, and spurted out as if some vessel had been severed. After this the patient would gradually sink into a state of complete unconsciousness. While in this condition he would live over again the past, issue orders to his military company, pass through his former railroad accidents, or review the events of the previous day, with a vividness that would fairly astonish. The convulsions, if such they might be called, more closely resembled those of delirium than epilepsy. There were no inco-ordinate spasms, but every motion was reasonable. From pulling the bell-rope to his desperate leap from the engine to avoid the inevitable collision, every movement was as rational as that of the most reasonable being could have been in the actual scene. His conversation accounted for his motions, his expressed intention being invariably carried out by his subsequent action. The eyes were fixed and staring, the face flushed, pupils slightly dilated, breathing full and regular. Unconsciousness was apparently total, the prick of a pin meeting with no response, reflex or otherwise. The duration of these attacks averaged about three hours, the patient suddenly regaining full consciousness, or passing into a heavy sleep, possibly the result of the anæsthetic that had been administered. After the paroxysm he usually complained of severe headache, and could recollect nothing.

If seen immediately after the hemorrhage from the ears, his treatment consisted of dry cupping along the spine, morphine in half grain doses hypodermically, an ice-cap to the head, and full etherization. These procedures frequently succeeded in aborting the attack or very much mitigating its severity. When the paroxysm was well established no amount of anæsthesia or narcotics could control it or shorten its course.

This state of affairs had continued for about a year, when one night, after an unusually violent and protracted seizure, the patient, deeply etherized, had sunk into a profound slumber. Anæsthesia was complete, the eye being insensitive and the reflexes apparently abolished. While in this condition the house-officer inadvertently passed his hand over the seat of the former head injury, and to his surprise the patient was immediately thrown into a violent convulsion, uttering scream after scream as if in great agony. The anæsthetic was again applied, and a thorough examination made. The cicatrix was found to be about two inches in length and slightly depressed, but so exquisitely painful that the slightest touch was sufficient to reproduce the convulsions. When questioned subsequently the patient said that the scar was usually slightly tender on pressure, and just before the attacks became quite painful, but he had never attributed his disease to such a cause, and, therefore, had not mentioned it. On learning the above facts the hospital surgeon decided to make an incision, remove the cicatrix and, if necessary, trephine. The operation was accordingly performed under deep anæsthesia. No metal plate was found, and the bone appeared to have healed without the least depression. Trephining was therefore deemed unnecessary, the cicatrix was removed and the wound closed. Since this operation, slight though it was, the disease seems to have entirely disappeared; there has been no recurrence of the attacks, and the patient is, to all intent, entirely well.

In endeavoring to solve the problem as to the cause of this peculiar affection we are led to make three queries: 1st, as to the influence of the old wound in producing the attacks; 2d, as to the part played by the cicatrix; 3d, as to the probability in the case of a morbid state allied to hysteria. If there were, as the result of the old wound, a depressed fragment that had been overlooked in the first operation, or if an exostosis or new growth of any kind existed sufficient to cause by pressure symptoms of so marked a character, we should naturally, at the onset of the attack, look for prodromata or expect permanent pareses that would be referable to the point of pressure. The injury had occurred as nearly as can be located over the arm center on the left side. Such being the case we would look to the right arm for signs of the disease, precursory or otherwise.

These, however, were entirely wanting. Neither is it probable that disease produced by pressure of any growth or fragment could be relieved by such means as were here employed. If by *contre-coup* there had been a hemorrhage elsewhere in the brain, or, from any cause, a thickening of some portion of the membranes, our present knowledge of cerebral localization would enable us, approximately at least, to locate the lesion. But signs of such import were totally absent, the only prodromata being the vaso-motor disturbances. These could hardly be due to direct irritation at the small centers in the cord, or the general center in the medulla, as such irritation would undoubtedly produce additional symptoms of a far more serious nature. Neither, as has been shown, is it likely that the impulse was transmitted from the cortex, owing to the utter lack of concomitant signs.

We are constrained, therefore, to search elsewhere for the cause. What influence, then, had the cicatrix on the causation of the disease? There are on record a large number of cases in which epilepsy has been undoubtedly due to cicatrices of the scalp. These cases, however, were repeated as characteristic epilepsy, while the patient in question presented few or none of the well-known signs of that disease. In the production of epilepsy the reflex irritation from the cicatrix might have been sufficient to cause vaso-motor spasm, thus producing the cerebral anæmia, which is commonly accepted as a factor of the disease. In this instance, on the other hand, the signs were rather those of cerebral hyperæmia than anæmia. It is not impossible to believe that such a hyperæmia could be caused reflexly, provided the irritation were of sufficient intensity to excite the vaso-dilator or paralyze the vaso-constrictor apparatus. There are exceptional cases reported in which the disturbance seemed to be of this nature, the congestion being so great that hemorrhages occurred, and Parrot speaks of bleeding from the eyes and ears. Furthermore, "the influence of traumatic causes in producing severe and repeated cerebral congestion is generally recognized."

There is a form of psychical or "masked" epilepsy, in which symptoms similar to those in question could appear. This form is marked by a low degree of volition and a perverted consciousness,

and would, perhaps, account for the mental symptoms exhibited by the patient. Still, there being no other features in the case compatible with epilepsy, we are unable on tenable ground to so diagnose it.

Upon careful examination by a competent aurist the patient's tympanum was found to be without perforation. The hemorrhage, therefore, must have resulted from capillary rupture in the external ear, although this would seem scarcely probable without previous rupture of the skin. Associated with arterial weakness or disease it would be easy to understand how such rupture might occur, *into* the skin, from over dilatation; in fact, ecchymoses are common in such cases. But that the rupture should occur *through* the tough skin is certainly remarkable. The fact, however, still remains that the hemorrhage occurred, although it is difficult to assign a satisfactory *modus operandi*. We conclude, then, that it is possible that all the phenomena in the case may have resulted reflexly from the cicatrix.

There are many points, also, that require a consideration of our third hypothesis; for instance, Was there in this case an element of morbid mentality? The character of the patient would tend to exclude such a supposition. His anxiety to recover and dread of the oncoming attacks were certainly genuine, neither did he show that peculiar desire for sympathy that is so characteristic of hysteria. The fact that the aural hemorrhages were (as far as the writer knows) never seen at the moment of the occurrence might excite a suspicion of malingering. The blood was seen, however, oozing from the ears, and if brought about intentionally must have been in considerable quantity. Yet there were no signs discovered of the source of such a supply, neither was there evidence of self-inflicted laceration of the ear. Genuine hemorrhages, also, do occur exceptionally in hysteria, due to extreme dilatation of the vessels. Thus this phenomenon is not incompatible with such a diagnosis. The long duration of the paroxysms, and the semi-comatose state that followed, more closely indicate hysteria than any other definite affection. To the same disease also can be reconciled the lack of response to stimulus, the equable temperature and the regular respiration. The movements of the patient were evidently not

automatic, but under the control of a delirious volition. Furthermore, the entire cessation of the attacks after an apparently simple operation would seem, perhaps, to indicate a mental influence. It is possible that the patient had acquired what is known as the "induced involuntary" form of convulsions, starting originally as purely purposive attacks, and eventually passing beyond control of the will. The mental effect of the operation would, in such a case, be the secret of the recovery. Thus, had there been no traumatic history, it would certainly be admissible to assign the attacks to a hysterical origin. Still under our second query it is easy to explain the recovery by the removal of the source of reflex irritation. Between reflex and hysterical hypotheses it is certainly difficult to form a definite opinion, the case presenting factors that support either conjecture. Perhaps in this instance a combination of both elements existed.

CLINICAL REPORT FROM THE ROCHESTER CITY HOSPITAL.

REPORTED BY A. L. BENEDICT, M. D.,
House Phgsician.

A CASE OF RENAL ABSCESS FOLLOWING CYSTIC DISEASE.

L. K., single, laborer, age 24. Admitted to hospital September 14, 1887. Nine months before, he was operated on at Ann Arbor for vesical calculus, by the latest perineal method. A fistula was left, through which he urinated when asleep, but in the daytime he urinated naturally. A probe passed in one half inch.

Three weeks before admission he noticed a swelling in left lumbar region posteriorly. This was opened and one pint of pus evacuated.

On November 30th the patient's general condition was such as to warrant operation on the fistula. Accordingly a staff was inserted into the bladder and the fistula was sewed with nine silver sutures as in lacerated perineum. A linen catheter was fastened in the urethra and a dressing of iodoform gauze and cotton applied to the wound, which was dressed daily.

December 9th the sutures were removed and the fistula was found to be perfectly closed. For two months the patient's condition was very good, with the exception of some vesical irritability,

which was relieved by hyoscyamus. Mineral acids were also given. Meanwhile the sinus from the lumbar abscess had healed.

February 10th a small perineal fistula admitting a probe was discovered, and the patient's general health was not so good.

March 4th albumen and pus were found in the urine.

March 23d the external opening of the fistula was enlarged and the deeper portion found to be in the prostate anterior to the neck of the bladder. Several pockets connected with the fistula. After cutting through constrictions and removing cicatricial tissue, the wound was irrigated and packed with iodoform, the intention being to secure granulation from the bottom outward. As in the previous operation, a catheter was fastened in and the bladder was washed with 1 per cent. boric acid solution once or twice a day, both to cleanse it and to enlarge its capacity, which had become small on account of the free outflow of urine through the fistula.

April 4th the granulations at the inner end of the fistula had formed sufficiently to prevent the escape of urine, so the catheter was withdrawn.

April 10th the old abscess on the back discharged spontaneously a considerable amount of pus. A probe passed three inches directly forward.

April 14th the fistula again discharged urine. From this time the patient grew weaker, with nausea, which was only partially controlled by cerium oxalate, and, in spite of tonic and stimulating treatment, and rectal alimentation when the stomach could not retain food, death occurred by asthenia on June 4th.

At the autopsy the spleen and liver were found sclerotic, the former increased to thirteen and a half ounces in weight. The left kidney was small, enveloped in a mass of cicatricial and adipose tissue three-eighths of an inch thick and weighing with this covering only three and a half ounces. The pyramids were degenerated and a sinus led backward from the substance of the organ to the external opening, from which pus had been several times discharged. The right kidney weighed thirteen and a half ounces. Its capsule was adherent and the pyramids degenerated in some places. The cortex and the outer portion of the medulla were studded with multiple abscesses of the size of a pea. The bladder

was of the size of a horse-chestnut, a small fistula leading out from its neck.

MYXŒDEMA.

May 12, 1888.—Mrs. M. B., 50 years old, born in Poland. Has not worked for two years; confined to bed for one year. Stout, teeth bad, old laceration of cervix uteri, lungs and heart normal, rotation limited in hips and shoulders. Erythema of finger tips and palms, œdema of superficial tissues in upper abdominal zone, arms and neck. Patient seems melancholy and cannot or will not talk, though she apparently makes an effort to do so.

℞

Potassii iodidi, grs.v., t.i.d.

Passive motion ordered.

May 14.—History obtained from husband and daughter. In bed and unable to walk for a year. Complains of general pain. Appetite good, bowels constipated, sleeps poorly. Unable to talk, except on great exertion, for past six months. Has had ten children, five living, youngest 11 years old. Menopause five years ago. Daughter thinks she has gained in flesh while in bed. Some family trouble, which might account for her melancholy. The urine was examined several times and found normal. The peculiarity of the œdema was its sharp demarcation from the normal softness of adjacent tissues, the line of separation not being at any natural anatomical barrier. The patient gradually became more cheerful, was able to sit up most of the day and would speak a few words in answer to questions, but the dysphasia continued.

July 20.—Discharged improved.

CHOREA OF PREGNANCY.

Mrs. G. W., 20 years old, married seven months. Is five months advanced in pregnancy. Had chorea when 15, another attack two months ago, since which time the symptoms have increased in severity. For two weeks she has been kept in bed with difficulty. Temperature sub-normal, scarlet rash over breast and face, looking somewhat like that of scarlatina; does not talk much.

July 12, 1888:

℞

Potassii bromidi, gr.xl.

July 13.—No improvement.

℞

Potassii brom.	℥ij.
Potassii iodidi.	℥ss.
Sodii brom.	℥j.
Ammonii brom.	℥ss.
Ammonii chlor.	gr.xx.
Liq. potassii arsenitis.	℥j.
Tr. aurantii.	℥ij.
Syr. simp.	℥ij.
Aquæ q.s. ad.	℥ij.

This was given in ℥j. doses every two or three hours.

July 14.—Very restless and noisy. Three wet cups applied to back. Blood ℥iij. withdrawn and morphine, gr.¾, rubbed into scarifications. Urine, 36 ozs. for 24 hours; acid, S. G. 1020; sediment of epithelium and sodium acid urate.

Milk diet, ℥iv. every hour when awake.

July 15.—Discontinue previous prescription.

℞

Potassii brom.	grs.xxx.
Chloralis.	grs.xx.
Ext. belladonæ.	fl.m.j.

This dose was given every two hours for several times, and was then administered less frequently as the convulsions became less marked.

July 18.—Second prescription discontinued; semi-solid diet.

July 21.—First prescription given every six hours. Patient quiet and sits up in bed.

July 28.—Discharged well.

THE following is a simple method of ascertaining whether the air in a room is pure or not. Take a clear glass bottle with glass stopper, holding about half a pint, into the room the air of which you wish to test. Stuff a linen cloth into the bottle, and withdraw it rapidly, so that the air of the room may enter the bottle. Then put a tablespoonful of clear lime water into it, and replace the stopper. Shake the bottle for a few minutes; and, if the air is pure, the lime water will remain clear. If, on the contrary, it is bad, and loaded with carbonic acid, the lime water will become turbid, or even milky.—*Medical World.*

Hot Water Enemata in Painful Affections of the Lower Bowels.—The St. Louis *Medical and Surgical Journal* says: One who has ever witnessed the magical effect of a warm or hot water clyster in colics and griping pains of the bowels will never hesitate to resort to the remedy before trying anything else, when called to see a case of the sort. The water should be from 115° to 120° F. at the lowest, and is all the more efficient if ten degrees warmer, and for an adult at least a pint may be pumped into the rectum.—*Pacific Record.*

Bories on Apomorphia and Antipyrin in Asthma.—A woman of fifty, married, has been an invalid for a number of years with asthma. She had been given various anti-spasmodics, but found only temporary relief. Nitrate of amyl., ether, sulph., chloroform, etc., would all throw her into violent paroxysmal fits of asthma, Inhalation of pot. nitratis and pulv. stramonium made her much worse. I gave her a heavy dose of pot. iodide which served to relieve her considerably; was called two hours later, found her in a still worse condition then she was when first called. I injected $\frac{1}{12}$ gr. apomorphia hypodermatically. Within five minutes there was complete emesis, and my patient sank back on her pillow in a deep sleep, from which she did not waken for some four hours. She had no relapse for more than four weeks. Was called again of late; found my patient in a violent paroxysm of asthma. I at once injected $\frac{1}{12}$ gr. apomorphia. There was complete emesis and some sleep, but, on awakening, her paroxysm again returned fully as violent as before. She now complained of a severe frontal headache. I at once gave her 15 grs. of pot. bromide and 4 grs. caffeine citrate. The preparation gave her no relief; her headache was severe and the asthma attack agonizing; gave her 10 grs. of antipyrin. Within twenty minutes she felt relieved, headache was much easier and the asthma much better; left her a solution containing about two grains to the drachm, instructing her to take a dose every two hours till three doses were taken. It has been a month since the last attack, and during that time she has been entirely free from any attack. Since the above case came under my notice the same remedy was given in another case of asthma, with decidedly happy results.—*So. Cal. Pract., Analectic.*

The Medical Press

OF WESTERN NEW YORK.

Published by THE MEDICAL PRESS ASSOCIATION of Western New York.

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Subscription price: $2.00 per Annum.

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BUFFALO, N. Y., SEPTEMBER, 1888.

SOME OF THE RARER SYMPTOMS PRODUCED BY GALL-STONES.

The fact that gall-stones have existed without any symptoms whatsoever is worthy of consideration, but more so the fact that they may produce symptoms entirely different from those ordinarily recognized. It is a common experience in the *post-mortem* room to find gall-stones, solitary or in hundreds, in the gall-bladder, with no sign of structural lesion in the walls of the bladder, and in such cases as have at no time given any history of symptoms ordinarily recognized as produced by gall-stones; and the question might be asked, Are they ever passed without symptoms or knowledge of the person until they are accidentally found in the chamber-pot?

Biliary colic with vomiting, followed by jaundice and the urinary and fæcal signs of retention of bile, are the most obvious signs of existing gall-stones, and yet there are cases on record in which large stones have been passed by the bowel without any of these symptoms.

Dr. Wm. M. Ord, of London, in an article on this subject, reports a case in which a large stone was passed by a lady the day after giving birth to a child, and with such difficulty as almost to constitute a second labor. Another case gave symptoms of intestinal obstruction, and so severe that a laparotomy was made, with no result, but finding in the jejunum a space of five inches intensely inflammed, black and rough. The patient died the next day, and a

large stone was found a little below the inflamed portion of jejunum, with the gut slightly inflamed about it. The stone had been moved in the operation without being felt.

Cases are far from rare in which stones have given rise to various kinds of pain, inflammation and to death, without any of the ordinary symptoms. Dr. Ord mentions a peculiar case, which was treated for everything, from uterine irritation to cancer, and the *post-mortem* showed that a gall-stone had found its way into the peritoneum. She had been subject to irregular attacks of fearful pain in the region of the gall-bladder, associated with vomiting and faintness, but never had jaundice, nor even passed pale stools. The disproportion between the stones found and the bile duct in these cases makes it probable that they passed into the intestine by the duct, and that very likely an adventitious ulcerative perforation, leading in the one case into the peritoneum, in the other, after previous establishment of protective adhesions, into the intestines, had taken place. Dr. Ord suggests the necessity of remembering that, although no symptoms of biliary obstruction be present, gall-stones must be kept in mind as possible factors in cases of recurring pain, vomiting, tenderness and thickening in the epigastric region; that is to say, where cancer ulceration of the duodenum may also be suspected.

The cases in which no pain has been experienced are exceedingly difficult to explain, if not in a similar way as the others. But there are more remote and little noticed evils wrought by gall-stones. They sometimes produce a peculiar form of fever, preceded by rigors, and having more or less irregular intervals, much like ague. The late Dr. Murchison reported such a case in the person of an Indian medical officer, who, on returning to England, was attacked with paroxysms of shivering, followed by fever and sweating, recurring weekly. It was first diagnosed as remittent fever, later as hepatic abscess, but at last seemed unmistakably due to gall-stones, and the *post-mortem* revealed impaction of gall-stones, with incomplete occlusion of duct, but great irritation.

Charcot has also noted such cases. Both regarded the condition as due to nervous irritation, and compared them to a similar condition caused by the passage of renal calculi—uroseptic fever. Dr.

Ord thinks it due to local irritation of mucous surfaces, and likely to occur in victims of intermittents or persons apt to take on febrility. He recognizes the same tendency in catarrhal conditions of all kinds, but especially as regards the intestine or urethra.

Gall-stones may also cause glycosuria, as the following case of Dr. Ord's will show: A man, aged 60, who had lived in Ceylon and had had severe jungle-fever, returning to England came down with severe attacks of biliary colic, with jaundice and "ague fits." Liver and spleen were enlarged. He was thirsty at all times, passed much urine, and wasted away. The urine per diem ranged from 50 to 70 oz., sp. gr. 1026–1032, with much sugar and much albumen. By careful exclusion intense limited irritation of mucous membrane of the duct was diagnosed, complicated with glycosuria. Treatment of the catarrhal condition with alkaline sulphates, carbonates and potassium iodide and an anti-diabetic diet, brought about rapid improvement and was followed by passage of a gall-stone. Quinine and arsenic had been taken by the patient before with no effect. It seems that irritation in the gall duct, besides causing pain and local inflammation, may in a reflex way produce arterial hyperæmia of the liver, thereby glycosuria, or a reflex pyrexia corresponding with the paroxysms of the local irritation. There seems to be also a curious association of renal troubles with biliary colic.

That gall-stones may produce visceral inflammations seems proven by the following case, also reported by Dr. Ord: A man of middle age was troubled for some years with biliary colic, but no calculus was ever found in the fæces. Two courses at Karlsbad made him free from attacks for one year; then came a series of excessively severe attacks of biliary colic, increasing in duration. A consultation was held to decide whether cholecystotomy were indicated. But the patient now showed unmistakable symptoms of pneumonia of lower lobe of left side, besides being intensely jaundiced and showing other symptoms of obstruction. At first it was thought the lesion had arisen by contiguity, and indicated abscess in the gall-bladder; still there were no signs of suppuration, inflammation or tenderness in the epigastric or right hypocondriac region, and no pain attending contraction of the diaphragm. The patient had been lying in the same well-warmed room, free from draughts,

for several weeks, and had not been exposed. But it could be accounted for in no way except that it might be of reflex origin, and, perhaps, was an alternative of the glycosuria indicating hepatic hyperæmia.

It is well-known that pneumonia is a fairly common complication of advanced diabetes, and is associated with a diminution of sugar in the urine, and that it may disappear entirely. Dr. Ord believes that the pneumonia is induced by a transference of arterial hyperæmia from liver to lung, variously determined by position of body, by cold, by disorders of venous circulation, or by previous weakening of lung. He has had three cases, and in all of them, as long as there was pyrexia, the sugar remained; but when pneumonia manifested itself it suddenly fell and even disappeared. In the above case no glycosuria was found, and, perhaps, the intense irritation in the liver produced of itself reflex arterial hyperæmia. The patient recovered and soon passed a large number of gall-stones—nearly seventy.

Gall-stones often coexist with malignant disease of the gall-bladder and parts adjoining. This might give rise to a speculation as to how far the presence of gall-stones would be capable of causing malignant disease. But there is as yet nothing positive known about this.

Dr. Ord also reports two cases of severe hemorrhage associated with the passage of gall-stones. In one case there was no biliary obstruction, and the bleeding might be supposed to be produced by the tearing of the opening between the duct and bowel. In the second case hemorrhage occurred directly after an attack of biliary colic with jaundice. After the bleeding had stopped, a ragged stone, sufficiently small enough to pass through the gall duct, was found.

Thus we see that biliary colic and the passage of a stone, involving much pain and usually terminating favorably, may be complicated with many accidents. Some little obstruction may send the stone into one of many by-ways and cause either abscess, glycosuria, distant inflammation, probably malignant disease or serious hemorrhage.

Biliary colic is not a terrible illness, but "the gall-stone is to be dreaded and feared in proportion as there are less of the colic and more of the accessory symptoms."

THE RECENT SMALL POX SCARE.

Our city has recently escaped a serious invasion by that dread scourge small-pox. But for the prompt intervention of the sanitary authorities it is probable that it would have spread widely, at least among the large foreign element of our population. Only those who are familiar with the ignorance, superstition and gregarious habits of the Poles and Italians in our "infected districts" can realize how much had to be done in stamping out the disease. From Dr. Clark, the energetic City Physician, we have obtained the following details:

"The first case of small-pox was in the person of one Jackson, at No. 147 Oak Street, who was first seen by me July 7th. He was so feeble that he was not removed to the quarantine hospital, and died about sixteen hours after the first visit, being buried five hours after death. All bedding, clothing, etc., in his apartments were destroyed by burning, and the house thoroughly fumigated by burning sulphur, after which the walls, woodwork and floors were washed with a strong solution of corrosive sublimate. The house was then placarded and rigidly quarantined for two weeks. No new cases have since developed in that locality. About ten or twelve days after Jackson's death nine cases of small-pox were discovered among the Polish people at East Buffalo. Some of these affected children were in attendance at the St. Stanislaus Parochial School after the eruption began to show itself." Upon learning this fact, the Health Physician came to the conclusion that the only safe course to pursue was to vaccinate all of the people in that part of the city. Accordingly he established a bureau of vaccination at the corner of Broadway and Townsend Street and set at work the entire medical staff of the Board of Health, sixteen physicians in all, who were detailed to work in the various streets throughout the Polish quarter. Besides the house to house vaccination about seven hundred daily were vaccinated at the headquarters, Broadway and Townsend street. In all about sixteen thousand men, women and children were vaccinated. Besides the nine cases above mentioned, four others have since developed in this locality. Of the fourteen persons attacked with the disease, twelve were children ranging from $3\frac{1}{2}$ to 8 years of age. The others were a man with varioloid and a

woman with confluent small-pox. There were in all seven cases of confluent small-pox, one of these being of the hemorrhagic variety, which terminated fatally on the fourth day of the eruption. This is the only death which occurred at the hospital. At the outbreak of the trouble Dr. C. B. Le Van was appointed resident physician at the quarantine hospital, and gave his entire time and attention to the patients. The disease was undoubtedly brought into the Polish quarter by an emigrant who came from a town in Prussian Poland where small-pox was raging severely. He had with him a trunkful of woolen clothing, which upon his arrival was hung up in the room occupied by him at No. 210 Detroit street. About two weeks after his arrival four cases of small-pox occurred in this house, and since that time one other case has occurred in the same house and two in the adjoining house.

This shows how what might have become a serious epidemic was taken in good time, and reflects great credit upon Dr. Clark and his fellow-workers.

* * *

SINCE writing the above a few isolated cases have been reported, as was to have been expected. No alarm need be felt, however, since the cases are all well in hand.

* * *

SOME months ago we had occasion to bemoan the apathy and indifference of the members of the Buffalo Medical and Surgical Association. We are greatly pleased to be able to say that this lethargy has in large measure passed away. The summer meetings have been unusually well attended, the papers read have been of higher order, the discussions more lively, and the sessions in every respect more creditable. It still happens that those speak who have nothing to say, but so they do the world over. Dr. Van Peyma has made a very energetic presiding officer, and has already secured promise of a full and interesting programme for the ensuing meetings.

* * *

A RECENT journalistic enterprise, inaugurated under purely local auspices, is *The Trained Nurse*, a monthly journal devoted to the profession of nursing and "consecrated to those who minister to the

sick and suffering in hospital and home." Its editor is Miss Margaret E. Francis, formerly superintendent of the Training School for Nurses, and it is published by the Lakeside Publishing Company at the very reasonable price of one dollar. It is very tastily issued and judiciously edited, and contains so much that is of value that it might appropriately enter every home and be read by every mother. Indeed, it is so *apropos* that its motto might well be changed to "Consecrated to the interests of the sick."

* * *

We have pleasure in noting that the value of Prof. Pohlman's services were duly appreciated at the recent meeting of The American Association for the Advancement of Science in Cleveland, when he was unanimously elected General Secretary for the meeting. The sessions were largely attended and the work done of a very high order, reflecting credit upon all concerned. Whatever was done that may prove of special interest to our readers we shall present later.

Correspondence.

LETTER FROM LEIPSIC.

Leipsic, July 1, 1888.

My Dear Doctor—I have just completed a two months' period of study in the ancient and justly-famed university here, about whose present surgical advantages you may be interested to hear a few words. I was drawn here by the fame of Thiersch, the *ordinary* professor of surgery, but found in addition to his course some dozen others, so that the opportunities to be had admitted of no doubt.

Thiersch is a man well advanced in the sixties, of fine, commanding presence and very courteous manner. In the lecture-room, after a few days' observation, you become thoroughly impressed with his ability, but first the casual observer might think him somewhat superficial in his methods. Indeed, this criticism has been raised against him by some of his students in times past who cannot reconcile the value of time and the dignity of a professor with

a certain amount of joking with patients and a display of humor far too rich for them to understand,and so in their pessimistic way they pass judgment, quite overlooking the wealth of sound theory and practical ideas in the man. Indeed, I think Thiersch better fitted to teach advanced or post-graduate students than beginners. From no single man in Germany, possibly one excepted, have I learned so much in diagnostic methods. By watching him arrive at his own conclusions you cannot fail to become impressed with the keenness of his observation and his power to interpret symptoms when often quite obscure. His method of conducting his clinic, which is that followed by most or all of the professors in other departments, is as follows: A patient is admitted into the amphitheatre and at the same time the *famulus* or clinical clerk calls from his list some student, who enters, examines the case, and gives his diagnosis. He must, of course, be prepared to defend his opinion. If successful he gets credit for the same, and at the end of the semester he receives a certificate. He must possess two of these to be eligible for the final examination for his degree. With Thiersch the examinations (diagnostic) are very easy, as he seems to have a goodly share of the milk of human kindness in his veins, which prompts him to answer his own questions. Not so, however, with some of the other professors, who are very exacting, and who, further, refuse a certificate, no matter how good the diagnoses, if the student shall have been absent upon five occasions when his name has been called. In this way attendance at the clinics is practically compulsory. But to return. In Thiersch's clinic this examination by the students continues for one hour, after which the operative work begins, lasting from one to two hours longer, according to circumstances. Thiersch has done much ingenious work in plastic surgery, and certainly shows much skill oftentimes in making a small amount of tissue cover a good deal of space. For a man of his age he can operate with astonishing rapidity, and, notwithstanding somewhat deficient antisepsis, gets good results. Thus two weeks ago I saw him remove an ovarian cyst and close the abdomen in less than five minutes, and then make an extirpation of the uterus in a fat, full-blooded and otherwise apparently unfavorable case, and at the time of writing both are making a rapid convalescence. He still clings

to the spray and does not use much sublimate solution for irrigation of wounds. Pure chloroform is the anæsthetic, administered through Junker's apparatus. Since he has been connected with the University (about twenty-one years) he has given it over thirty thousand times, with four deaths, one of which occurred last week. The case was one of skin-grafting, in which the chloroform was reluctantly given because of the trivial nature of the operation. The patient, however, begged so piteously that his request was granted. The operation was about completed, when the pulse stopped and could not be restored. Nothing ante- or post-mortem could be ascribed as a cause.

Thiersch has given intubation in diphtheritic laryngitis a thorough trial and extending over a period of some months, but with no results, so that he has now resumed his former treatment—tracheotomy, with which his percentage of recoveries is about fifty. He ascribes his lack of success as compared with American surgeons in the matter of intubation to a different type of the disease, thinking that in his cases the membrane is thicker and tougher and the constitutional symptoms severer. As to the latter, he is certainly wrong so far as I have seen, including a great many cases. Thiersch gives in addition an operative course which is excellent, but does not differ essentially from those in Vienna previously spoken of.

Benno Schmidt, an *extra-ordinary* professor, gives a capital poliklinic. The same method of examination of patients by students is pursued. The great number and forms of disease gives one a good diagnostic experience. The student not only diagnoses the case but makes the operation and directs the treatment personally (subject, of course, to modification by the professor) until recovery of the patient. This clinic much resembles Weinlechner's in Vienna, which has been previously commended. Schmidt is very thorough in his description of symptoms, the smallest details not escaping mention. As a consequence he rarely mistakes the disease, and his hearers are taught to observe carefully.

Another clinic deserving notice is that of privat-docent Kölliker, the son of the famous anatomist and histologist in Würzburg. He was for three years an assistant in Volkmann's clinic in Halle and has been seven years here. His number of patients is also very

large. He has, in addition, a large private hospital, to which, through his courtesy, I had access. Thus it was possible to see both aspects of his work, which is deserving of all praise. All that he says and does denotes much thought and careful investigation. No one coming here should fail to see and hear him.

One word of commendation for Lesser's course in dermatology and syphilis. What with all the necessary material and decided ability as a teacher, aided by impressive and graceful language, Lesser makes his lectures highly instructive. Although still young, he has written a work upon dermatology which has received high praise and is changing its editions rapidly. The other clinics, while scarcely equal to these mentioned, are yet good and well worth taking. Almost no English or American medical men come to Leipzic to study, although one finds plenty in other departments of the University. It is a little to be wondered at, considering the advantages it presents. I have no hesitation in ranking it next to Vienna, which it much resembles in variety of courses and in centralization of the various buildings. I understand, however, that it has begun to show evidences of degeneration and has fallen to fourth place in the number of its students, Berlin, Munich, and Würzburg now leading, in the order named. This deterioration is, however, in other departments than the surgical, which has so far maintained its standard.

Whoever comes here should have a pretty thorough knowledge of the German language, as very few of the teachers speak English, and they speak quite rapidly and with a pronunciation somewhat perplexing at first. Thus equipped any one can pass his time here most profitably.

I leave Germany in a few days for France and then England, and go from this land with some reluctance, not from any previous unfavorable reports of these latter countries, but because I do not well see how Germany can be surpassed in its advantages. A more profitable and delightful year of study than that just passed I could not have desired. As pathologists and diagnosticians the German surgeons seem as near perfection as the present condition of our knowledge will admit. As operators their technique challenges only praise. When, however, we consider them as therapeutists the

question arises if they are not at times unnecessarily radical. A German hospital surgeon seems a kind of king, who can rule his patients as he chooses, and does. As a result the knife is often used where, I am sure, in America at least, milder measures could and would be employed, and with success. I have often asked concerning this, and have had in answer that the radical treatment had proved the surer and speedier. Perhaps peculiarities of race, constitution, etc., here come into play, which accounts for the difference. One thing is certain: their results are good. However, the American student has to bear in mind that hospital patients in Germany and private patients in America are quite different, and must not become so imbued with the efficacy of German surgical therapeutics that he can see no virtue in other resources. Conceding that more thorough measures would be better oftentimes for our patients, if they cannot be applied they do not avail. I mention the matter because I have so often heard American students thoroughly enthusiastic over procedures in which I am sure many of their patients will not concur. This is the only feature, however, which the American will find lacking, and if he guards against this one difficulty he can come to Germany confident of getting a thoroughly substantial and practical surgical knowledge.

Sincerely, JOHN PARMENTER.

LETTER FROM PARIS.

PARIS, August 10, 1888.

My Dear Doctor—The physician studying the eye, the skin or the diseases of the nervous system, finds Paris a veritable paradise, but my friends in the other specialties are not so well suited. Here we have this advantage, everything is free and the large special hospitals give an abundance of material, the Salpetriere and Bicetre being those for the diseases of the nervous system.

The first time one visits the Salpetriere it is natural to experience a feeling of awe as one remembers the prominent part this institution has taken in the history of psychological and neurological medicine. Here it was that Pinel made the great reform in the care of the insane, treating them as sick persons, instead of as wild beasts.

In the lecture room of the hospital is a very large painting by Fleury, representing Pinel standing in one of the courts of the hospital, pointing to different patients chained to posts. In the center of the picture is a young girl from whom attendants are just removing the handcuffs and belt. In later years we associate Vulpian with the hospital, and now Charcot. The Salpetriere is an immense institution of 5,000 beds, and is for the care of aged and infirm women, and for women with diseases of the nervous system. The service is divided between Professor Charcot, Doctors Joffroy-Falret, Augustus and Jules Voisin, and their associates. They make their visits daily, and each holds a consultation once a week in the out-patient department, service limited to mental and nervous diseases. The number of patients visiting here is about 300 per week.

But it is especially of Professor Charcot of whom I wish to write. He has made the Salpetriere and its work famous for the last fifteen years, and after following him for four months one can see how he has accomplished it. In the first place, he is an untiring worker. Seven days in the week he visits his hospital and studies his cases. Tuesday he gives his clinical lecture of two hours, and after that sees the new out-patients. They are examined quickly and told to come on different days of the week for a careful examination. Those examinations are a most valuable part of the teaching. This is done for Charcot's own special gratification and study, and only the internes and physicians who are studying neurology attend the consultation. The patients come in groups, and are there for comparative study. For instance, one morning I saw five patients with athetosis standing in a row, while Charcot pointed out the symptoms common to them all and then the peculiarities of each case. In one it was limited to one hand, another it included the feet, one had contracture of wrist, another spasmodic twitching of muscles; but all had the slow, graceful movement of the fingers or toes, that resembles, one might say, the movement of a snail's head.

His studies in hysteria are of great interest, especially to those who have been accustomed to see only the forms which are common with us. Among the more important cases of this class he has shown us the hysterical paralyses—pointed out the differential diagnosis between the hysterical and cerebral form. He has shown

clearly the difference in the gait of the hysterical and the true hemiplegic. In the first we see the paralysed leg dragged straight forward behind the sound leg, the toe dragging on the ground. In the true hemiplegic the gait is characterized by a movement of circumduction and the dropping of the toe. Most all of the cases of hysterical spasms and contractures have been examined over and over again. They have shown the general rule to be true; that in hysteria we find in nearly every case hysterogenic zones—points of anæsthesia or hyperæsthesia. In a large number of cases he has shown a contraction of the visual field, in some cases it being no more than a point. This is a very important test, and if properly tried will settle many a doubtful case. Pharyngeal anæsthesia is also common.

In treatment, the experiments of transfer, either from one patient to another, both patients being hypnotized, are interesting, as they show what can be done; but I doubt the necessity of it. The same thing can be done by transferring the anæsthesia from one side of the body to the other by suggestion, either with or without the use of the magnet.

This leads me to speak of the use of the magnet in hysteria. His method of using it is simple, and the results I believe to be purely due to the influence of suggestion. He takes a patient in the waking state, suffering, say from a hysterical cramp; places a strong and large horse-shoe magnet near the unaffected side. In a certain length of time, varying from ten minutes to two hours, or even a day, the muscles of the sound side begin to contract and the muscles of the affected side to relax. This continues until the transfer is complete. After a time the process is reversed, and so the cramp is transferred from one side to the other, for a number of times, until finally the cramp or contracture becomes weaker and weaker and then disappears altogether. But all this is more in the line of experiment. The ordinary treatment used and recommended by Charcot for hysteria is, first, isolation. He uses the douche of 12° for 15 seconds daily, applied on the trunk and limbs but not on the head. Static electricity three times a week. Iron and the bitter tonics when indicated.

We see occasionally remarkable instances of mistakes in diagnosis by outside physicians. For instance, last May a young woman

of 22 years came to the clinic to be treated for a double blepharospasmus and a coxalgia. From her history it was found that seven years ago she was sent to bed by a physician for this coxalgia and that she stayed there four years. She then was supplied with one of the patent steel braces, and she walked with the aid of crutches but with great pain. There was also a strong contraction of the great toe of that foot. A year ago double blepharospasmus appeared, and she was taken to a prominent oculist who made nerve section on each side, with no benefit. Examination of the patient showed contraction of visual field, anæsthetic and hyperæsthetic zones along the left side of the body—left ovaralgia and anæsthesia of the pharynx. Treatment was commenced by taking away the steel brace—douches ordered daily, and static electricity three times a week; also massage daily. At the end of ten weeks the contraction of the toe had disappeared and the patient could bear her weight upon the foot; a thing she had not done before in seven years.

But the work here is not confined to hysteria, as many people suppose. No. Charcot's work comprises the whole line of nervous diseases. It is interesting to see him brighten up when he has an opportunity to show a case of his joint disease in *tabes dorsalis*. This is a curious affection and is now conceded by all to be spinal arthropathy, as first claimed by Charcot. I have seen six cases of this disease; two of the knee, three of the elbow, and one of the shoulder. The history of the case is that the patient, a tabetic, who has gone to bed at night with joints normal in appearance, wakens the next morning and finds a joint, by preference the knee, very much enlarged. Examination shows it to be distended with fluid—no pain. The joint swelling remains a certain length of time, from four to six weeks, and disappears. Then at some later period, perhaps three months, the patient wakes up and finds he has dislocated the joint during the night, or he may have a fracture, or both. As time progresses the bones change in form by the constant attrition. Treatment is of no use, as the cause is in the cord.

In the general treatment of nervous diseases the thermo-cautery plays an important role here, and with very gratifying results.

At a future time I shall write you concerning the Bicetre.

Yours truly, J. W. PUTNAM.

Translations.

THE ILLNESS OF EMPEROR FREDERICK III.

From Official Reports by Profs. Bardenleben, Von Bergmann, Dr. Bramann, Profs. Gerhardt, Kussmaul, Drs. Landgraf, Moritz Schmidt, Profs. Schrœtter, Tobold and Waldeyer.

ESPECIALLY TRANSLATED FOR THE "MEDICAL PRESS" FROM THE "DEUTCHE MED. WOCHENSCHRIFT."

From time to time we have furnished our readers with an analysis of the report concerning the illness of Emperor Frederick III., prepared by the physicians in charge. On this occasion the report is presented to us in the form of a brochure. It reviews in a modest and casual manner all those facts previously published in the *Wochenschrift*, No. 26, setting forth the unscrupulous and indiscriminate proceedings of Dr. Mackenzie. The following is an exhaustive abstract of the publication.

It begins with a communication from Prof. Gerhardt. In the order of succession, we first learn of the origin of the malady. Since January, 1887, His Imperial and Royal Highness, at that time Crown Prince of Prussia and the German realm, was affected with a lasting hoarseness which gradually increased.

On the 6th of March, 1887, at the request and in the presence of Dr. Wegner, the court physician, Prof. Gerhardt made an examination with the laryngoscope. During respiration, there was visible at the edge of the left vocal chord, anterior to its middle, a small growth apparently pendulous and irregular. Its length was about 4 mm., its height 2 mm. In the production of sound, a linear, slightly elevated, pale red nodule projected at the designated locality. The diagnosis of polypoid thickening of the left vocal chord was given. Subsequently, an attempt to remove the growth with sharp instruments was made, but as difficulties arose it was decided to destroy it with the galvano-cautery. Sittings for this purpose took place on the 16th of March, and then daily from the 27th of March to 7th of April; the cauterization was especially severe on the last date, the growth being completely destroyed. Then it was agreed upon that

the patient should enjoy absolute rest, and for this purpose a previously planned journey to Ems was undertaken. The trip had also another object in view, for as early as April Prof. Gerhardt had doubts as to the true nature of the growth. At the outset it had to be considered and treated as benign, in spite of its unusual seat and appearance. The growth had to be removed; were it benign the royal patient would have been cured, were it malignant, its return would indicate its malignancy. It was for this reason that the sojourn in Ems was intended. Prof. Gerhardt communicated his suspicions to Dr. Wegner, and both agreed to carry out further indications on his return.

Reports from the public press at Ems were not comforting. On the 13th of May his Highness took his departure, returning to Potsdam May 15. His hoarseness was worse than ever, and the growth larger than before. There was a bulging of the vocal cords, with reddening of their mucous membrane. The growth, as it projected upwards on the inner side of the cords, without showing cicatrication of the cauterized wound, was flat, irregular, and of a grayish-red color. Posteriorly a furrow more than formerly separated it from the processus vocalis. The left vocal cord was more tardy in its movements than the right. The greatest fears were realized. Prof. Gerhardt did not withhold from the royal patient that the difficulty had returned, but requested that a surgeon, namely, Prof. Von Bergmann, be called in consultation. This proposition was approved, while the selection of a laryngologist was postponed until after the advice of Prof. Von Bergmann. Dr. Wegner notified the professor of the proposed consultation. On the 16th Prof. Bergmann made an examination and quickly expressed the opinion that it would be necessary to lay open the larynx and thoroughly extirpate the tumor in this wise, on account of its possible malignancy, or at least on account of its obstinate return.

After the consultation the question of a laryngologist was brought up by Dr. Wegner. Several names were mentioned. Dr. Wegner proposed the name of Mackenzie. To this Profs. Von Bergmann and Gerhardt agreed, because they believed the laryngoscopic appearance so characteristic, and the history of the case so clear and decisive, that anyone capable of employing the laryngoscope would

necessarily arrive at the same conclusion. On the 18th this inference seemed to be further verified. On this occasion a consultation, including several other physicians, occurred, among whom were Von Lauer and Tobold. Prof. Tobold carefully examined the larynx with the mirror, and at once declared that by exclusion the diagnosis must necessarily be that of cancer. All others present coincided, and it was unanimously recommended that as early as possible the larynx should be opened and the tumor removed. The reasonable and agreed upon diagnosis of cancer of the larynx, made on the 18th by the physicians named, was based: (1) Upon the rapid return of the growth; (2) upon the hardness and irregularity of the growth; (3) upon a wound remaining on the inner side of the growth; (4) upon the difficult movement of the vocal cord; (5) upon the certainty of the exclusion of tuberculosis and other infectious diseases; (6) upon other numerous corroborating circumstances. The last includes the age of the patient, the seat and appearance of the growth, the condition of the lesion in undergoing a similar ulceration, and also of healing. Besides, tuberculosis and every other infectious disease was excluded. The diagnosis was formed earlier than in many other instances, and founded with as much certainty as it possibly could be in this stage.

Mackenzie arrived on the evening of May 20, and with the physicians in charge made an examination. He received minute information of former observation and appearances, and on examination he immediately declared that he did not consider it cancer, as the entire aspect of the swelling was not that of cancer; and that he opposed the proposed operation as long as the microscope failed to show the cancerous nature of an excised piece.

The postponement of the operation until verified by the microscope was agreed to by all. The removal of a small portion of the tumor was entrusted to Mackenzie, while Virchow was asked to investigate it microscopically. On the 21st, in the forenoon, Mackenzie removed a small piece of tissue. Virchow's examination only proved an irritative growth, and demonstrated among luxuriant epithelium but a single nest of graphic, concentrated epithelial cells. Yet the objection arose that the extirpated and examined portion was not from the tumor itself. For the purpose of making another

test Mackenzie sought to procure a second segment. On the evening of May 23, at Potsdam, Gerhardt saw him introduce a strong pair of forceps, which he took from his breast pocket, without previous cleansing. At the time of their introduction the reflected light from the mirror deviated sidewards, falling on the cheek of the royal patient instead of being cast into his mouth. The forceps were withdrawn empty. More than this he did not care to do on the occasion. Gerhardt, who immediately followed Mackenzie in the examination of the patient, found both vocal cords much reddened, the right fully distended from blood, beneath which, near its margin anterior to its center, was a dark-red swelling protruding into the glottis.

The royal patient from this day was speechless, which continued for some time while in England. Shortly after he complained of pain in both sides of his throat, and some oppression. It is certainly probable that this may constitute the first case in which a laryngologist, through mistake, tried to tear away a portion of a sound vocal cord. The patient, who formerly had been hoarse but never speechless to exceed three hours, now remained mute for many weeks, that is to say, until July 8. In England, later on, the return of his husky voice was celebrated as a triumph of medical skill. At the large consultation which convened May 25, Profs. Von Bergmann and Tobold convinced themselves that the right vocal cord had been injured near its center. The injury, three days later, had altered its appearance, the redness of the cord had diminished, while at the seat of the lesion adjoining the chink a yellow blunt-pointed prominence existed. June 18 an ulceration, three to four mm. long and one to two mm. wide, could be seen, which appeared yellow and covered with pus. On the 24th of May Dr. Wegner and Prof. Tobold were in consultation with Mackenzie at Potsdam. In certain circles it was well-known that Mackenzie had promised the relatives of the royal patient that he would cure the disease in the course of a few weeks without resorting to an operation. But to the attending physicians he said nothing.

At the consultation of May 25th it was universally concurred in that Morell Mackenzie should remove the growth with the sharp forceps and galvano-cautery loop, as he asserted his ability to do the

same, and thereby fully restore the voice. He voluntarily declared that he would continue to operate in the aforesaid manner until an extirpated piece of the tumor was proven to be malignant or its growth increased.

Beginning with the 23d of May, at the request of Mackenzie, a daily insufflation of a powder composed of morphine, bismuth, catechu and sugar, was made by Dr. Wegner. The physicians beheld the cancer enlarge, while an innocent powder was being blown thereon. Everywhere, Mackenzie's promises were firmly believed. It is a peculiarity of cancer of the larynx to remain a local difficulty for a long time without affecting the vigor and general health.

The strength and robust health of the royal patient were such, that everybody rejoiced at the excellent prospects; and whoever remarked that the difficulty was slight and not dangerous had the approval of all those who knew nothing of the true nature of the case.

Dr. Morell Mackenzie, who during the time had gone to and returned from England, extirpated two small segments of the tumor June 8, at Potsdam. This time Prof. Gerhardt, who proved to be such an uncomfortable observer at an operation, was kept in the distance. The investigation of Prof. Virchow demonstrated papillary growths (improperly termed papilloma) combined with a proliferation of epithelium: pachydermia verrucosa.

Prof. Von Bergmann, at the joint consultation of physicians, expressed himself most emphatically, stating that the malady was one of carcinoma of the left vocal cord; consequently he favored the division of the larynx. For a small carcinoma in this organ he absolutely preferred the endolaryngeal operation. No matter how severely thyrotomy, the division of the larynx, as an operation for the removal of growths may be criticised, this much is certain:—that within the last decade it has been done more frequently and with diminished danger. Of the seven thyrotomies which Prof. Von Bergmann performed in Berlin, to which may be added two cricotomies, none have resulted unfavorably. All of them healed readily, without complications. The *Pall-Mall Gazette*, as well as the *Vossische Zeitung*, misrepresented Prof. Von Bergmann as a surgeon, claiming that none of his operations had been successful: "Dr.

Von Bergmann has not performed even one." However, Mackenzie did not consider the successful results obtained by Von Bergmann, yet the latter was not alone in thinking well of the operation; many others, as, for example, Rauchfuss and Köhler, took the same position; and the recently published work of Schuchardt, in Volkmann's "Clinical Lectures" on laryngotomy, states that the danger heretofore had been overestimated, while under proper antiseptic precautions the peril is but slight.

Under such circumstances it is very clear that Von Bergmann advocates the division of the larynx in all cases where there is an established suspicion of a malignant growth in the lower portion of this organ. In the four volumes of the *International Centralblatt für Laryngologie*, which have so far appeared, only fifteen cases of division of the larynx could be found, consisting of thyrotomies and cricotomies. Of those operated upon, one died of diphtheria, however; all the others, notwithstanding the operation, are quite well.

It is a decided mistake to determine the value of an operation by the aggregate of results of individual cases, made from the pages of our casuistic magazines.

Such statistics and data are only valuable for the elucidation of the particular case. If one reviews such a series of labors with respect to the extirpation of the entire larynx or one of its parts, there would only be discovered what the recent accounts of the extirpation of other organs, as well as the history of the resection of the stomach and intestines, has already shown. The new operations were at first welcomed with too much hope, and were, therefore, accorded a greater latitude than they otherwise have received. On this very account experience soon disclosed the advisability of narrowing them down to a few cases where, however, the possibilities of cure were decidedly increased. The cases which were cured after total or partial destruction of the larynx were such as had existed a comparatively short time, and were of small dimensions.

This explains the fact that the percentage of cures in cases where one-half or a smaller portion of the larynx was destroyed is more favorable than that of the cures through total extirpation. The growths which were removed in the one were smaller than those in the other. As according to the conception of the physicians the

carcinoma on the left vocal cord of the distinguished patient was still very small, the operation seemed to promise the best results. To this, of course, must be added the tendency towards cornification of the tilted epithelial cells in the new cancerous growths, which the microscopical investigations of Von Bergmann and Bramann at San Remo first revealed. But these very cornified cancroids, as the cases of Hahn and Shede show, offer the very best prognosis.

Of any other operation besides the division of the larynx for the purpose of removing the small tumor on the lower surface of the left vocal cord there had not been any thought during May, last year. This was the only question under discussion. Von Bergmann emphasizes this especially, as the press constantly referred to the total removal of the larynx, and because many German and English journals, basing their utterances upon the expectation of a total extirpation, had already in June extolled Mackenzie as the man who would rescue the Crown Prince from the hand of the surgeon. The operation that the physicians proposed was not more dangerous than ordinary tracheotomy; to which, after all, according to the accepted diagnosis, it had become necessary for the Crown Prince to submit. Von Bergmann had, therefore, proposed nothing save what was unavoidable and imperative.

Herr Von Bergmann, in demanding the operation, stood upon the ground of his own positive experience, which was in consonance with the results obtained by Hahn and Küster.

All these have had cases where cancer of the larynx had been removed by laryngotomy and partial extirpation, and positive cures attained. Granting, however, that the physicians had been in error, and should not have found cancer, but only some benign growth, then the operation would have done no harm to the distinguished patient; while the diagnosis, whose correctness Mackenzie had questioned, would still have been made clear in good time.

The aperture in the larynx, as such, would not have menaced life nor destroyed the power of producing tones. The latter, of course, would be greatly changed by the removal of the tumor, whether this had been within or had extended beyond the bounds of the mucous membrane. In this the endolaryngeal method would

not have differed from the extralaryngeal. A part of the vocal cord must unavoidably have been destroyed with the removal of the tumor, if it was, indeed, to be removed, whether the manner in removing it was from within or without. It was necessary, therefore, for Von Bergmann to state that the operation, which he proposed to undertake, would permanently injure the voice; that a hoarse, rough voice would still remain, which, since the right vocal cord could be saved, would be easily comprehended. In fact, all preparations for the operation had been made on Mackenzie's arrival; and had the latter consented, the same would have taken place May 21. The royal patient said himself: "The tumor must be removed at all events. If it cannot be extracted from within, then an external incision should be made."

With regard to the opinion of Virchow, Von Bergmann asserted that he gained hardly anything for his diagnosis from the few cases through problematical experiments, and that it was a mere matter of chance or good fortune if a truly characteristic portion were obtained from an organic tumor like carcinoma. In the case in question it was barely possible to reach that portion of the tumor where characteristic lesions existed, because it was situated on the lower surface of the vocal cord, and possibly only on the walls of the lower laryngeal space. This situation made the extraction of a part suitable for examination very illusory, and, therefore, Gerhardt and Tobold refused to attempt it. Mackenzie grasped with his forceps the superior free surface of the vocal cord, and in order to reach the foundation of the growth in question it was necessary for him to have gone through the whole thickness of the vocal bands; that he did not succeed in this, Virchow's description of the fragments proves. Bergmann could not arrive at any other conclusion from Virchow's description save "Non liquet." That an accurate result could not be attained from the anatomy of the specimen in question, and certainly not the conclusion which Mackenzie and the journals favorable to him drew.

The German physicians, after the last consultation with Mackenzie, lost completely the confidence which his appointment had occasioned. This was caused, first, by the uncertainty of his manipulations in the larynx, which did not offer the least assurance that his

instrument had actually reached the tumor, and not some other place in the interior of the larynx, as, for example, the notoriously badly wounded right vocal cord; second, through his unscientific and wholly arbitrary theory, without giving any credit to Virchow's opinion, and throwing every responsibility from himself upon the pathological anatomy; third, through the manner in which the press appropriated the details of the illness of the royal patient immediately upon Mackenzie's appearance in Berlin. A number of correspondents were received and a series of telegrams to English newspapers were sent by him, as has been here officially ascertained. The first newspapers that contained the words "cancerous and malignant growths" were English, viz., the *Daily Telegraph* of May 24 and 25, 1887, in their Berlin correspondence of May 21 and 23. The last number praised Mackenzie above all, as so often happened later, as the deliverer of the Crown Prince from the dangerous as well as useless operation; while the following number (26th) immediately proclaimed the complete restoration of the voice of the royal patient, and on the 29th was so amiable as to apologize for the misgivings of the German physicians as owing to the weakness of their national character. Even on the 24th of May, before the general consultation of the 25th, occurred a conference between the court physician, Dr. Wegner, and Dr. Mackenzie, in the new palace (Schloss Friedrichskron) instead of at Potsdam, in which the former made a protocol to which Mackenzie agreed. The contents of the same are incorporated in the archives of the royal house. It reads: "Dr. Mackenzie is of the opinion, from the form of the growth, that attempts should first be made to remove as much as possible of the tumor with the cutting forceps, the remaining portions to be destroyed by the galvano-cautery. Dr. Mackenzie declared with certainty that in time the voice would be restored in such a manner that it again would become loud."

In the meantime mildly astringent powders were to be applied to the swelling. Dr. Mackenzie was, moreover, of the opinion that the employment of the forceps was not absolutely necessary; he considered galvano-cautery to be just as good. In reference to the nature of the swelling he believed the same, according to Virchow's investigation and statement, to be a favorable growth, and that it

could be healed by internal treatment (intralaryngeal). In the minutes kept by Dr. Wegner of the consultation of physicians, held May 25, which were also officially recorded, we read: "Dr. Mackenzie believes, from its clinical history and from the microscopical examination, that the tumefaction is an inflammatory thickening, and that as such it cannot be cancerous. If the new growth continues to increase, it must first be treated with the forceps. If this or other endolaryngeal procedures should fail, then division of the larynx must be made. With this the German physicians coincided. The opinion of Von Bergmann is nearly identical with Gerhardt's."

According to Wegner's protocol and the official records, the latter is as follows: "Though he does not believe that he can remove the tumor by the endolaryngeal method, the assurance of Mackenzie that he can remove it induces him to agree to his plan, only, however, till the examination of the tissues or the subsidence (that is to say the cessation of the growth) of the tumor does not make another plan necessary. In his version of the consultation, which had at that time already been prepared, Bergmann 'expressed the fear that if the extirpation was delayed too long, of what seems to me to be an epithelial cancer, it would assume a magnitude which would almost preclude the external operation determined upon.' Mackenzie objected, that the external laryngeal section would change the voice if not abolish it, and would be prejudicial and aggravative, while his plan of removing made extremely probable the preservation of the vocal cords." Prof. Tobold contributed to the protocol the following: "I believe that the removal of the new growth by means of bruising forceps to be inopportune and insufficient; that it is wholly impossible to remove a diffused new growth in that manner precisely and accurately. For there is danger that sooner or later a return would occur; besides, according to my experience, the deep employment of forceps is an unavoidably brisk treatment of the vocal cords and their growths, especially if the growth has a malignant character, as it favors a tendency to new vegetations, and after all makes a more exact procedure necessary. I hold that laryngo-fissure is alone the proper method to extract the new growths. Through it every diseased spot and all fostering soil can be extracted with absolute certainty and sufficiency, and rendered

harmless with the paqueline cautery. Under these conditions a most favorable result for the voice is likewise to be expected; while after the employment of the crushing forceps an uneven, torn and slashed vocal cord remains." Universally, at the time, the general opinion prevailed among physicians and laymen, that the German physicians had erroneously assumed an irritative cancer, and had contemplated a destructive bloody operation; that in the face of this Mackenzie rescued the life of the royal patient, and had by his promises saved him from that operation. The whole strength of the press was arrayed in support of the opinion. What could the swelling be if it was not cancer? According to Mackenzie it could not be cancer; at different times he designated it a wart without root, as laryngitis, as perichondritis, or as laryngitis and perichondritis. Nowhere had he ever given a clear tenable diagnosis; only in the negative to cancer was his position. The reasons which Mackenzie brought forward against cancer were as follows: First, the swelling did not look like cancer. A dispute on such grounds is not possible. Second, a piece should microscopically be proven cancer. For every disease, whose cause is clearly known and apparent, in every microscopical section, such reasoning holds, as, for instance, for tuberculosis, actinomycosis, the analogy of the blood in anthrax, and in recurrent fever. It is generally acknowledged that the nature of the cause of cancer is as yet unknown. The most noteworthy experiments to discern a fungus nature as the cause have thus far acquired no acknowledged result. We still stand, to-day, in regard to diagnosis of carcinoma, somewhat in the same position we did to tubercles before Koch's discovery of the bacillus tuberculosis. A tumor, mainly of proliferation tissue, can exist on a small spot of cancer, as in the case communicated by Virchow in his work on Tumors, vol. I., pp. 349, and yet its progress may show its malignancy as in that case, even if the anatomy of the tumor declares its benignity, for instance, fibroma. Still much oftener the cancer is surrounded by small innocent proliferations. Virchow made complete allowance for this in that he always only asserted that the portion examined by him contained no cancerous tissue. Mackenzie wrongly regarded Virchow's result as proving that the whole tumor was benign. He wrote on the first of June to the publishers of the

German Review for the purpose of publication: "I am happy to be able to inform you that through the microscopical examination of Prof. Virchow it is now fully established that the disease is not cancer." He must have known that Virchow could only possibly have examined an off-shoot, and there could have been a malignant center. The progress was clearly explained to him and it should have been considered, but it was not.

At the last consultation, when the German physicians said that the tumor had already appreciably grown over the posterior wall, that the vocal cord moved insufficiently, slower than the right, Mackenzie answered: "I do not see it!" He himself wrote in a published report from San Remo that the slight mobility of the left vocal cord had been already determined in Berlin. Ought not he also to have seen it in Berlin? For a long time the opinion prevailed that this questionable disease was not cancer, but pachydermia verrucosa laryngis. This was supported by Virchow's examination of a small portion of the tumor. Not much was gained through this, as no clinical history whatever of this disease exists; neither in Virchow's work on Tumors, in Mackenzie's Diseases of the Larynx, or any other work, can a word be found concerning it. At that time the only thing that was written with regard to it exists in a dissertation by Hünermann (Berlin, 1881), which, like the later report of Virchow's, only makes positive statements as to the anatomical aspect. Three facts argue decidedly against this position: First, pachydermia is *par excellence* a drinker's disease: there was not even a remote possibility bringing that in consideration with this case. Second, pachydermia almost always appears symmetrically, as Jüngens had communicated in his first description of the disease at the session of Charité-Aerzte, March 29th of this year. Here the disease was unilateral for months. Third, pachydermia is a slowly spreading disease; while here, again, the rapid growth was conspicuous from the beginning.

Lastly, let us consider here the objection raised by Lennox Brown, that the disease was made malignant through irritative treatment, especially through Gerhardt's galvano-cautery. This transformation doctrine but few have any faith in. The numerous statistics of Felix Semon should have proven this; as in 8300 cases of

benign tumors forty are said to have undergone malignant transformation. Most individuals see here the statistics of the error of human diagnosis, but not transformation.

In every case of a small growth projecting from the edge of the vocal cord of undetermined character it becomes a duty to remove it. What physician would remain with folded arms and allow it to grow quietly, so that it should not become malignant? If the new growth were destroyed, and grew again with threatening rapidity, no one should hesitate to make it accessible through laryngotomy, and destroy it root and branch. Or does Lennox Brown credit the galvano-cautery with the capability of making cancers out of polypi? More so even than Mackenzie's forceps, which afterwards so terribly afflicted this larynx? Let us suppose it was shown even in the least degree of frequency, say as one might conclude from Semon's statistics that in one-half per cent. of the cases in the larynx benign growths change to cancer, then it would not yet have been that any method of treatment influenced this process either favorably or preventatively. It was a threefold groundless assertion which was here made public. The physicians were entirely unprepared for the news that Mackenzie wished to take the royal patient to England or the Isle of Wight, where climate would have the most advantageous influence on the repair of the disturbances in the larynx. With regard to this determination a council which took place at the residence of Dr. Wegner, the court physician, in which Drs. Von Lauer, Wegner, Schröder, Von Bergmann and Gerhardt participated, expressed the following wishes: First, that laryngeal examination should take place by a German specialist. Second, that the treatment of Dr. Mackenzie should be continued as he specifies until the tumor proves malignant after microscopical examination of one or two excised segments. For this purpose a piece should be removed somewhat later and sent to Virchow for investigation.

It was the unanimous desire of the physicians that Professor Gerhardt should take charge of the escort, and he was accordingly requested to do so, at the instance of the royal patient. It is not clear, why at the last moment Professor Gerhardt's escort was dispensed with and in his stead Dr. Landgraf was ordered as assistant to Dr. Wegner for the laryngoscopic examination. Dr. Landgraf

reports, during the sojourn of the royal patient in England, as follows: "His officiousness was confined to the receiving of the result of the laryngoscopical examination, and in discussing the significance of the same with his superior, Dr. Wegner.

Concerning other points more necessary for determining the progress of the disease,—as, the variation in the weight of the body, the enlargement of the lymphatic glands, and the difficulty in swallowing, he could hardly speak with any degree of certainty. Mackenzie placed in contradiction to Landgraf's observation of the obvious inflammations, the difficulty of motion of the left vocal cord; and in a hastily sketched account to Dr. Wegner, he marked neither the defect in the right vocal cord nor the swelling on the posterior wall. Consequently there now existed a difference of opinion. Dr. Landgraf objected to Mackenzie's mode of treatment and proposed on the evening of the 19th of June that, with the approval of his Royal Highness, every time Mackenzie intended to make a change of treatment, he should make a general statement of the grounds therefor to Dr. Wegner. This proposal was declined by those concerned.

[TO BE CONTINUED.]

Society Proceedings.

BUFFALO MEDICAL AND SURGICAL ASSOCIATION.

Reported by W. H. Bergtold, M. D., Sec'y.

Regular monthly meeting held August 7th in the Buffalo Library Building, President Van Peyma in the chair. After reading and approval of the minutes, Dr. W. H. Heath exhibited an interesting monstrosity. The mother presented no unusual features or history during her confinement save her inordinate girth. There were present to account for this diversity two factors, viz., an exceedingly large placenta and a great accumulation of amniotic fluid. By casual examination the monster appeared to be anencephalous, while closer scrutiny proved that it was really a case of *spina bifida*, the lominar portions of the cervical vertebræ being deficient. A well

developed cranium and face existed, with, however, a peculiar implantation of the head on the trunk, causing the foetus to appear anencephalous.

Discussion.—Dr. Mynter was reminded by the report that he had never met with a case of *spina bifida* until the previous week.

Dr. Herman Mynter then read a "Review of Surgical Cases Treated in the Buffalo General Hospital from March to July, 1888." The essayist exhibited several patients on whom he had operated with very satisfactory results.

Discussion.—Dr. Phelps believed that the profession of Buffalo was indebted to Dr. Mynter for introducing several methods of operative surgery that were real advances. First, he would call attention to Thiersch's method of skin-grafting. Dr. Phelps had used this procedure with marked and manifest benefit in a number of cases. Second, to Schede's aseptic blood-clot method. Where, for example, in scraping away carious bone the resulting cavity is allowed to fill with blood under antiseptic precautions—the clot afterwards organizes and becomes ossified many times sooner than if the cavity were to fill up with granulations, etc. Dr. Heath thought that the record presented was excellent. When operating for varicocele he usually left one vein and totally extirpated the rest. He had never had an attack of orchitis follow this method. Dr. Hartwig spoke of Dr. Mynter's success at skin-grafting and related some experiments he had been making in transplanting animal skin to the surfaces of ulcers, etc. At present he was using rabbits, and would take pleasure, later, in reporting the completion and the ultimate results of his work. Dr. W. W. Potter mentioned Hamilton's efforts at skin-grafting. He believed that this distinguished surgeon was the first American to use the measure. He viewed the essayist's results as very encouraging, especially the operations for the cure of cicatricial contractions, as these cases have long been a source of dismay to surgeons. Dr. Mynter was surprised to hear Dr. Hartwig speak of his own work with rabbits in a manner intimating that it was new and novel. Nearly a year ago he (Dr. M.) published an article in *The Medical Press of Western New York* (July, '87), describing a number of cases of transplantation of animal skin. In that article he reported successful results where the skin of rabbits

and pigs had been used. He did not find it necessary to kill the animal when removing the skin, according to Thiersch's method, for he knew from the personal experience of the Hospital staff and several members of the medical class, that the removal of the strips of skin was painful only in a very slight degree.

Dr. F. S. Crego followed with a paper on "Neuralgia, and its treatment."

Discussion.—Dr. Stockton was always pleased to have a subject like neuralgia come up for discussion, for it baffles our efforts at treatment as often perhaps as any other common ailment. Neuralgia is often anomalous regarding its reaction towards drugs. Sometimes a single remedy is efficacious; in small doses it may be, or we may have to saturate our patient. Again, we frequently have to cast about making combinations, etc., before we give relief. It always seemed strange to him that in an otherwise apparently healthy body we should have such severe nerve pain. Dr. Mynter would not use antifebrin, as advised by Dr. Crego, but rather would substitute antipyrin. He also did not agree with the speaker in the use of the faradic current for the relief of neuralgia, in a case of tic douloureux, for instance. He believed that galvanism was more suitable and was to be mildly applied.

Essayists for the September meeting announced as Dr. W. W. Greene, subject, "Diphtheritic Croup," and Dr. A. H. Briggs, subject, "The influence of Location on Disease and the Death Rate of Our City."

Adjourned at 10:30 P. M.

Selections.

RECAMIER PREPARATIONS.

The so-called "Recamier Toilet Preparations," manufactured by Harriet Hubbard Ayer, have been analyzed, with the following results:

Recamier Balm, in a cheap glass flask, tied with a bit of ribbon and filled with water, contains a white powder—the oxide of zinc—and *corrosive sublimate.* This preparation is sold for $1.50. It costs, at most, to make it, *ten cents.*

RECAMIER MOTH AND FRECKLE LOTION contains *corrosive sublimate* in almond paste or emulsion with water. It is sold for $1.50. It costs, at most, *ten cents.*

RECAMIER CREAM we find in an ordinary earthenware pot, in quantity about two tablespoonfuls. The package is ornamented with a piece of cheap ribbon. Although labeled "*without glycerine*," yet it consists of starch or arrowroot, and the oxide of zinc, made into a paste *with glycerine*, and reeking—that is the only appropriate word—with the odor of the oil of rose geranium. This "cream" also contains a *mercury compound.* Its selling price is $1.50. The actual cost is, at most, *ten cents.*

RECAMIER POWDER contains arrowroot and the oxide of zinc. It is put up in a pasteboard box, and sold for $1.00. Its actual cost is about *five cents.*

RECAMIER SOAP is an ordinary toilet soap, such as is usually sold for *ten cents.* Harriet Hubbard Ayer sells it for *twenty-five cents.* For the same scented, *fifty cents* is asked.

These, then, are the famous (?) "Recamier preparations," the secret of which was obtained, according to the circular which accompanies them, "by Mrs. Ayer from a French countess, a relative of Madame Recamier"! And what are they? Cheap, ordinary preparations, known from time immemorial, and condemned by physicians on account of the corrosive sublimate—*a deadly poison*—which most of them contain.

A bottle of VITA NUOVA gives, on opening, the characteristic smell of *wine*, which is confirmed by the taste and color. The liquid contains *18.75 per cent. of alcohol by volume*, and 12 per cent. of solid residue on evaporation, which *consists mostly of sugar.* This residue tested by all the reagents for the various alkaloids *gave no reaction*, showing that the liquid is *essentially port wine.* But we can go further than this. From certain peculiarities of the residue it is evident that an attempt has been made to obtain a wine of some tonic property. But from the ignorant or faulty method of preparation, so small a quantity of the drug or drugs used remains in the finished product that it fails to give a reaction sufficiently distinct to identify it even with the most delicate reagents. Comparing the amount of residue and its character with that obtained from genuine imported port wines, it can be safely said that the wine used is *native* port;

which may mean *any strong sweet wine colored to imitate the genuine article.* Here then is the famous tonic which *clarifies the mind and stimulates its action*, according to Delancy Nicoll; which *brings peace and hope*, according to Prof. David Swing, the famous divine; which is *well named new life*, according to S. S. Cox; and which, in the words of Hon. Jacob Hess, *is the most exhilarating non-intoxicating tonic I have ever tried!* Lawyer and clergyman, diplomat and politician, all join in singing the praises of *cheap wine as a panacea.* As already quoted from the circular, this article is claimed to be *positively free from alcohol.* Compare this with the 18.75 per cent. alcohol found by analysis, and comment is unnecessary. This is a straight out and out misstatement, and when the quantity recommended is taken into account, is *quiet capable of producing intoxication.* The dose is three tablespoonfuls, or an ordinary wineglassful, three times a day.—*Boston Journal of Health.*

Seven Sutherland Sister's Hair Restorer.—According to the same journal this much vaunted nostrum is composed of bay rum and common salt.

Book Reviews.

An Illustrated Encyclopædic Medical Dictionary; Being a Dictionary the Technical Terms Used by Writers on Medicine and the Collateral Sciences, in the Latin, English, French and German Languages. Edited by Frank P. Foster, M. D. Vol. I. 4to. Pp. 752. With Illustrations. New York: D. Appleton & Co. 1888.

Not a little expectation has been aroused by the unpublished and published announcements of Dr. Foster's great dictionary, and, now that the first volume is received, one closes it after a careful examination with a feeling of gratitude to all concerned that for once expectancy has not been disappointed, but has been more than realized. The entire work is promised in four volumes, though how this promise can be realized, when the first only includes A to Cac, is more than one can comprehend. In plan as in execution the work is more than acceptable; it is *immense.* It would be a great boon alone to have so thorough a glossary of English and Anglo-Latin terms, but when to these is added a complete collection of the medical terms of the other two contemporary languages whose

literature repays perusal, its value is many times enhanced. For instance, we remember once, years ago, hunting a long time through German dictionaries for the English equivalent of *bernstein-säure*, which a moment's glance here shows to be succinic acid. Again, take the French *Arbre du diable*, and we learn that it is a term given to the *ficus religiosa* by the Christians in Malabar, because it was adored by the heathen. But not alone in this respect does the work excel. The student who desires to learn what an aplanatic lens is finds here its briefest explanation; the pharmacist who wants to make the *aqua fœtida anti-hysterica* of the German Pharmacopœia finds its exact composition; the botanist learns that the French *berceau de la vierge* is a species of clematis; and so on almost endlessly. Eight pages are given to bandaging, with forty-six illustrations of typical forms. If one reads somewhere of Baynton's bandage, he will recognize it here as his old friend the compressive plaster bandage for chronic ulcers of the leg. Five columns are given to the French *artère*, thirteen to the Latin *arteria*, nearly two to the German *arterie*, and *twenty pages* to the English *artery*, with twenty-five illustrations of all the important vessels, and a brief outline of the course and distribution of every artery that has a name. This will give a bare idea of the fulness of this literally encyclopædic work. Add to this a conception of the diligence and care necessary for determing the derivation of every word, its exact pronunciation, the quantity of each syllable, and then giving an accurate yet concise definition of each term, one in which words are jealously hoarded, and the reader will have, perhaps, a mild idea of the labor involved in the task. In its elaboration the editor has had the coöperation of a corps of eleven of the best men that could have been selected in this country. All the dictionaries of all ages have been ransacked and nothing has been omitted which might give accuracy or completeness. Nothing of its magnitude has ever appeared in any country, and it will endure, for years and years to come, as a monument to the capacity and industry of its authors. For its typographical appearance, too, we have nothing but praise, since to paper, type and proof-reading no exception can be taken. Messrs. Appleton have indeed issued a work of which Americans may well be proud.

THE MALE URETHRA; ITS DISEASES AND REFLEXES. By Fessenden N. Otis, M. D. No. 10 of The Physicians' Leisure Library. Pp. 86. Price 25 cents. Geo. S. Davis. Detroit: 1888.

This volume of Mr. Davis' well-known series presents a very timely and readable presentation of the views especially advanced by Dr. Otis, which have now passed the crucial test of time and won their way to general acceptance. We say general acceptance, though we should, perhaps, qualify the phrase by adding, among genito-urinary surgeons. The accurate standard of measurements, in the use of which Otis was the pioneer, and the rules and means for determining variations therefrom in each and every case, is by no means so commonly recognized as it should be, and any little brochure of this kind, in which these matters are succinctly set forth, should meet with ready sale. In the matter of reflexes from both anterior and the deep urethra it contains facts of great importance which are sadly overlooked. While it presents scarcely anything positively new, it is yet a miniature mine of information and suggestion, and one which can be secured for an extremely modest price.

PHOTOGRAPHIC ILLUSTRATIONS OF SKIN DISEASES. By George Henry Fox, A. M., M. D. Parts 5 and 6. New York: E. B. Treat.

ATLAS OF VENEREAL AND SKIN DISEASES. By Prince A. Morrow, A. M., M. D. Fasciculi IV.—VIII. New York: Wm. Wood & Co. Buffalo: J. H. Matteson.

A CLINICAL ATLAS OF VENEREAL AND SKIN DISEASES, Including Diagnosis, Prognosis and Treatment. By Robert W. Taylor, A. M., M. D. With fifty-eight folio plates, including one hundred and ninety-two figures. Parts I. and II., Venereal Diseases. Philadelphia: Lea Brothers & Co., 1888.

The two parts of Dr. Fox's collection of exquisitely tinted photographs comprise several beautiful illustrations of the varied forms of psoriasis, zoster and lichen, with pityriasis circinata and herpes facialis. These complete the first half of the work, and we have noted no falling off from the standard of excellence presented in the first number. The text is always good, brief and directly to the point, and the therapeutic suggestions good. It is sold at $2.00 per part.

Fasciculus IV. of Dr. Morrow's atlas is devoted to the syphilides and mucous lesions of syphilis; V. and VI., to other manifestations of this protean disease. VIII. contains plates of miscellaneous non-specific lesions, including particularly the exanthems. The text is lucid and condensed; nothing of importance is omitted, nothing

superfluous inserted. Those alone who have tried to imitate this style of writing can appreciate how successful with it Dr. Morrow has been. He appears to have been equally so with the selection of his pictorial subjects. Like the above this atlas is sold at $2.00 per part. Its conspicuous features, like those of Fox's work, have been alluded to at length in previous notices.

Of Dr. Taylor's long heralded atlas the first two parts of the Venereal Division have recently appeared. Dr. Taylor's long and extensive experience with these forms of disease, and his widespread reputation as the co-worker of Dr. Bumstead in the well-known treatise of Bumstead and Taylor, must serve not only to give an added interest to anything bearing the stamp of his name, but to enhance the intrinsic value of his admirable *chef d'ouvre.* Such works as this do much to atone for lack of clinical opportunities. The plates are many of them life-size, and the lithographic work has been executed by a well known Philadelphia firm with a very commendable fidelity to nature. The coloring has in almost every instance been so toned down that it is as little open to the charge of being "over-done" as anything of the kind can be. The text is a systematic and condensed treatise, in which etiological features are well treated, written in a most readable and entertaining style, which the author has made almost his own. Prescriptions and specific directions are found in number amply large, and yet general principles are neither neglected nor sacrificed to the insatiable demand for something to copy and give a patient. As the prefatory note aptly says: "To gather and prepare such illustrations, and to weave them into a comprehensive fabric with appropriate text, is an undertaking which rapidly increases in difficulty according to the conscientiousness of its performance; and the adequate execution of an enterprise of this nature requires long preparation and consideration, and a large outlay. In their respective spheres, the author and publishers have left nothing undone in the effort to make the Clinical Atlas a work which will be recognized as the standard authority on its subjects. A peculiar feature is found in the short clinical description of each of the figures, the resemblance of which to a lecture over the living subject will make clear the advantages thereby secured."

The entire work is to be completed in eight folio parts, measuring 14 x 18 inches, and embracing 58 beautifully-colored plates, with 192 figures, 65 engravings, and about 400 pages of text. Price per part, $2.50. Two parts to be issued every two months. Certainly at this price it will prove a most judicious investment of the money.

A System of Obstetrics, by American Authors. Edited by Barton Cooke Hirst, M. D. Vol. I. Philadelphia: Lea Brothers & Co., 1888.

This work is published in association with the similar work on Gynecology by American authors, edited by Dr. Mann of this city. The present volume is of nearly eight hundred pages octavo, containing 309 wood engravings and one colored plate, showing the areola in pregnancy. The first division, occupying about 50 pages, is devoted to a history of obstetrics, by Geo. J. Engelmann, M. D. The writer is well known by his monograph on the same subject, which many of our readers are probably familiar with. The physiology and histology of ovulation, menstruation and fertilization, and the development of the embryo, are discussed by H. Newell Martin, F. R. S., M. D., D. Sc., M. A. The discoveries in human embryology have not been remarkably great within the last ten years, and yet this second part of about 130 pages shows some interesting additions to this important subject. The editor of the work, Barton Cooke Hirst, M. D., has written on "The Fœtus, its development, anomalies, monstrosities, diseases and premature expulsion." The subject of fœtal diseases receives extended and thorough treatment. Monstrosities are, however, not so fully treated as they are in the last division. The subject of the treatment of abortion is also noticed as particularly worthy of perusal. This part occupies nearly the same extent of space as the preceding. Pregnancy, its physiology, pathology, signs and differential diagnosis is discussed by William Wright Jaggard, A. M., M. D. Under this head the disputed question of the development of the uterine cervix receives exhaustive treatment. Here also are added discussions on progressive pernicious anemia, on hæmophilia and on goitre as they occur during pregnancy. The diseases of the alimentary canal, the kidneys, and in fact all of the diseases of pregnancy, receive a full and careful consideration. Of the Conduct of labor and the management of

the puerperal state, by Samuel C. Bussey, M. D., we can only say that the subject is fairly well treated. Less than a hundred pages are devoted to this topic. Much more favorable comment is due to R. H. F. Penrose, M. D., LL. D., for his in great part original and very valuable handling of the subject of the mechanism and treatment of labor based on mechanism. Especially do we desire to call attention to the remarks on the rationale of the mechanism and treatment of face presentations. The remarks on trunk presentations also include some original observations. The subject of anæsthetics occupies sixty pages and is written by J. C. Reeve, M. D., in a way that does him great credit. In addition to chloroform and ether various other remedies, such as chloral, cocaine, etc., are noticed. The volume concludes with the division on "Anomalies of the Forces in Labor," by Theophilus Parvin, M. D., LL. D. This author and his productions are well and favorably known, and no greater praise need be given than to say that the subjects of deformities of the pelvis and monstrosities are reviewed in a way worthy of the writer. The work as a whole is of great value and is but little open to the criticism—so true of many works of this kind—that it shows the traces of having been made to order. The press-work is beautiful. V. P.

NOTICE.

In order to make The Medical Press of greater value to our readers, we offer to print, for not more than two insertions, three-line notices of wants, exchanges, practices for sale, etc., *free of charge*. Such notices should be received by the fifteenth of each month.

WANTS, EXCHANGES, &c.

Histological work of all kinds promptly done; *post-mortem* examinations, etc. For terms and information address Dr. H. G. Matzinger, 510 Delaware avenue.

Practice for Sale.—A good practice in a town of 2000 inhabitants. Poor health the reason for giving it up. Address, Dr. M. U. Campbell, Wolcott, N. Y.

To Exchange.—For other microscopic preparations. Mountings of nearly all the pathogenic bacteria. Also, cultivations of same in gelatine or agar-agar, for sale or exchange. Address the Editor.

The Medical Press
of Western New York.

VOL. III. OCTOBER, 1888. NO. 10.

SURGERY OF THE BRAIN, BASED UPON THE PRINCIPLES OF CEREBRAL LOCALIZATION.

BY ROSWELL PARK, A. M., M. D.
Professor of Surgery, Medical Department, University of Buffalo.

ABSTRACT OF AN ADDRESS BEFORE THE CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS, IN WASHINGTON, SEPT. 19, 1888.

This essay is intended to be devoted purely to the surgical aspects of this evening's topic; I must, therefore, be excused from considering, except in a casual way, operations for relief of recent hemorrhage, or those for epilepsy, except so far as they are caused by lesions which can be studied beforehand, and those in which operation is dictated by a study of subjective rather than objective features. There is a rapidly growing tendency in favor of exploratory operations in all parts of the body, and, as our technique improves, our confidence in such work becomes strengthened. There was a time when diagnostitial laparotomy was quite unjustifiable; now it is often our duty to perform it. There was a time when the operation of trephining had a mortality rate considerably over 40 per cent; now, in proper hands, it has fallen below three per cent. Surely many others can say of their own cases, as the writer can say of his, that they have never lost a patient as the result of the operation. Indeed it is easily susceptible of demonstration that exploratory trephining is the safer of the two.

CEREBRAL TOPOGRAPHICAL ANATOMY.

Not much less astonishing than the discovery of the planet Neptune at the spot determined by the computations of Le Verrier was the first discovery of a cerebral lesion at exactly the point indicated by a careful study of somatic disturbances; both were wonderful examples of inductive reasoning.

The areas which most concern the surgeon in this kind of work are those which cluster along the fissure of Rolando, and the proper determination of the location of this fissure is, to the surgeon, what the long base line is to the geodetic surveyor. A few bony prominences deserve our attention for a moment; that at the root of the nose known as the *glabella*, the external occipital protruberance, known also as the *inion*, the point at the vertex, half way between these two, the *bregma*, the external angle of the orbit, the tip of the mastoid process, the lower border of the alveolar process of the upper jaw; all these are land marks of importance. The fissure of Rolando has its upper end about five centimetres back of the bregma, but it does not run quite to the middle line; its lower end lies about half a centimetre behind the auriculo-bregmatic line, and a little above an imaginary line projected backward from the supercilliary ridge; thus, the lower end of this fissure will be found about six centimeters above and a little behind the external auditory canal; or, about an inch behind the bifurcation of the fissure of Sylvius.

Another ingenious way of locating it is that advised by Mr. Hare, of Edinburgh, by means of an instrument known as the *Cyrtometer*, a home-made example of which I show you here. It seems superfluous on an occasion like this to mark out in detail the methods by which individual convolutions and sulci are located from without; consequently, for this knowledge, I must refer you to the full paper, of which this is an abstract. It is of importance, however, to state that lesions of the dura mater overlying motor areas are by no means always to be distinguished from lesions in the cortex beneath, and it is a well established fact in surgical pathology that various disturbances of the dura can call forth symptoms of profound severity. The researches of Duret on the Role of the Dura Mater and its Nerves in Cerebral Irritation have shed a flood of light on this subject, but having been already alluded to by my predecessor, I will refrain from reharsing them. I will simply content myself with the remark that it is enough for the surgeon that a lesion of some kind can be located with reasonable accuracy. It matters not whether this is an old, irritative lesion, an accute suppurative process between the bone and the brain, or an abcess or tumor in the brain itself. The indication for exploration is just as strong in either case, and it is the surgeon's duty

to penetrate the bony roof of the brain and be prepared to meet any indication within, just as in abdominal surgery one begins by exploration, being prepared to operate on anything which may be discovered.

While the cerebellum is, in the future, to be by no means exempt from surgical invasion, we are, nevertheless, not here bewildered by such a wealth of topographical boundaries and divisions. It lies entirely beneath the tentorium, which divides to form the lateral sinus. The external guide to this sinus is a line running parallel to the superior curved line and a little below it. It would be best in operation to allow, at all events, a half inch and then to perforate the bone with caution. It must also be remembered that the Torcular Herophili is seldom exactly centrally situated, most commonly a little to the left. Other facts which need to be borne in mind are that children and the aged have no diploe, that the crania of the aged may be extremely thin, that the frontal sinus is not to be disregarded in operating in its neighborhood, that the superior longitudinal sinus is beneath the middle line of the vault, and that the middle meningeal artery lies about an inch and a quarter back of the external angle of the orbit, and is sometimes almost buried in a bony channel.

WHEN AND WHERE CAN ONE TREPHINE WITH SAFETY?

Probably the safest rule to follow is that the first application of the trephine should be over those well-known areas of the skull which do not overlie large vascular channels. But after an opening has been made it may be enlarged in any direction, to any required extent, with a feeling of security, inasmuch as the larger the opening, the better our ability to cope with hemorrhage, no matter what its source. Hemorrhage from the middle meningeal artery can, under these circumstances, be easily arrested. Our greatest hesitation would be with regard to opening one of the sinuses of the skull. Two dangers attend such an accident: one, of fatal air-embolism, as has happened to Volkmann in removal of a sarcoma of the vertex of the skull; the other, that of profuse hemorrhage. The former danger is almost a theoretical one, since operations on the brain proper are not nearly so likely to lead to this accident as extensive lesions involving the bone itself. The latter is one which experience has taught us is by no means fatal; for, should bleeding thus occur, the sinus itself may

be plugged, or its wound may be closed with a fine needle and suture. Indeed Bergmann entirely removed a part of the superior longitudinal sinus in one of his cases. The researches of Schellmann have shown that the integrity of one sinus at least may be destroyed without any serious effect upon the brain itself; though, theoretically, one must perhaps hold to the opinion that the liability to œdema of the brain will thereby be increased.

CEREBRAL AND CEREBELLAR ABSCESS.

In his recent masterly paper Bergmann, in considering this topic, lays stress on the fact that abscess of the brain, in adults, has but one result — death — and that the surgeon's knife offers the only relief. The greatest difficulty lies in exactly diagnosing the nature and locality of the trouble. So far as we know, there is no such thing as idiopathic abscess of the brain; it is always a sequel either of some external wound of the head, or of some extension from diseased surrounding bone. The only exceptions to this statement are to be found in the case of pyæmic or tuberculous abscesses.

Bergmann assigns a distinct place to acute cortical abscesses, which form just underneath a point of injury, and which are to be distinguished by disturbances of healing, by the altered aspect of the wound, or the escape of pus; or, if these be not noted in time, probably later by the symptoms of acute meningitis. Still, it is not always easy to distinguish between such an abscess and a suppurative meningitis, for each may cause paralysis. A leptomeningitis may develop with almost lightning-like rapidity, whereas, time is required for the formation of an abscess, from which we hardly expect characteristic signs before the second week. If slower than this, ample time has been given for such adhesions to form as may constitute an effectual barrier to the advance of pus. In this case we have a collection which can be easily opened and drained.

There is a notable difference between superficial abscesses which develop in a few days, often with symptoms that constantly remind one of a leptomeningitis acuta, and the formation of those deeper collections of pus which may lie dormant for weeks, months or years. The former are the direct result of surface lesions; the latter are not to be explained. Exceptionally only do we see evidences of extensive

external lesions. Even violent injuries, such as cause concussion, are not often followed by them. They correspond to the abscesses which form in long bones, and are the result of intermittent processes. Between the pus and the cortical surface lies apparently healthy brain matter. Whether the exciting impetus is transmitted along the lymph vessels, or the blood channels, is not at present clearly determined.

Another and non-traumatic class of abscesses is that connected with disease of the middle ear, or with suppuration in other parts of the skull. Nearly half of the entire number of cerebral abscesses have this origin; but it is only chronic otitis media suppurativa which leads to this result; acute brain *symptoms* follow acute ear trouble, but not brain *abscess*.

The position of abscesses connected with middle ear disease is of surgical interest. Almost without exception they are found either in the temporal lobe, or in the cerebrellar hemisphere; in children, most commonly the former; in adults, the latter.

The symptoms of deep brain abscesses may be divided into three groups, according to causes.

1. Those which are inseparable from indications of suppuration. Such are those disturbances which may follow any deep-seated foreign body.

2. Symptoms of increased intra-cranial pressure and of disturbed relations.

3. Special symptoms by which the locality of the disturbance may be ascertained. These latter are, in fact, localization symptoms, which are often conspicuous when the abscess is in the motor area, and the reverse when it is in the frontal, temporal or occipital lobes. In case the abscess subsides into inactivity, and is followed by cicatrization and contraction, the local symptoms may much improve. The pus collecting in the depths of the hemispheres may only separate the paths which conduct the motor impulses, without materially affecting their integrity. So long as the gray matter is undestroyed, the collection of pus may assume large dimensions, even involve a large portion of one hemisphere, and still no intense motor disturbance appear. But the nearer it approach the cortex, and the more destruction it cause there, the more we may expect motor disturbances.

Like others, Bergmann lays considerable stress on local elevation of temperature over the abscess. General experience shows this to be a sign of considerable value when met with, but whose absence need not negative a diagnosis if made on other rational grounds.

Certain peculiar features are alleged to pertain to abscess in the temporal region; thus, Wernicke has stated that there is a peculiar disturbance of speech which points especially to this lobe as the locality of the disturbance. This is the confusion of correct with incorrect or fictitious (*erdichteten*) words; it is a species of aphasia implying interruption in co-ordination, which results from trouble at this point.

Without going deeply into the treatment of abscesses, I would simply remind that in the treatment of mastoid disease it occasionally happens that after opening the mastoid, and detecting pus, the surgeon comes to a halt, because he considers he has done enough in the absence of clear indication to the contrary. It may happen that subsequently cerebral symptoms supervene which point toward an abscess in the brain; in such a case, it will be proper to enlarge the original mastoid perforation to the necessary extent, to expose the dura, and to explore with a hollow needle. If pus be found, the abscess is treated as usual; if no pus be found, no harm will have been done.

It has been shown a number of times that the temporo sphenoidal region of the brain better tolerates surgical interference than almost any other part of it. If it could be generally taught that no good reasons exist why opening of the dura and draining the middle fossæ should not be practiced in cases of suppurative meningitis, we should not have the sad fact to contemplate that so large a proportion of the cases of cerebral abscess due to ear disease die unrelieved by operation. If abscess of the cerebellum can be diagnosed, no hesitation should be felt in trephining through the skull below the tentorium. Mr. Barker has laid down an excellent rule in such cases; namely, to explore the opening of the mastoid vein at once; if purulent softening have extended backward toward the cerebellum from the ear, some of the discharge will be found oozing from this foramen.

In the general diagnosis of cerebral abscesses it is necessary to remember, that there is usually a latent period, devoid of all brain

symptoms, which may continue for an indefinite time. The stage of active symptoms is usually ushered in by more or less headache and slight rise in temperature ; local or motor symptoms can be expected only when the abscess is in the motor area of the brain.

OPERATION FOR ABSCESS OF THE BRAIN.

Directions have been given by so many writers as to how to proceed in cases of suspected or certain abscesses of the brain, that it is not necessary to repeat them here. American surgeons, such as Fenger, Lee, Nancrede and Weir have fully illustrated this subject.

Traumatic brain abscesses have long been known, but until recently operators have satisfied themselves with incising the dura and doing nothing more. Dupuytren was the first to put a bistouri into the brain, and thereby evacuate pus. Unfortunately the death of his patient for a long time deterred others. Perhaps the next one to imitate him was Detmold. With the introduction of aspiration methods, the hollow needle came naturally to be used for brain exploitation. The dangers of this procedure are certainly small ; indeed, the more certain the diagnosis of abscess the less the danger.

The most painstaking investigations which have been made in this direction are those of Spitzka. He has made careful search in brains after exploratory puncture had been done and has found no evidence of such injury. Several times after injecting foul or irritating material into the brains of dogs, for experimental purposes, he failed absolutely to find any track of the needle or trace of its having entered the tissues, even though the foreign material injected through it was found encapsulated.

Next to the danger of puncture and incision, that from hemorrhage has been the greatest in common estimation. But even this has been greatly overrated. Most of the blood comes from the vessels of the pia rather than from the brain matter proper. The picture of a traumatic apoplexy may be most unpleasant, but is a most improbable one. In the use of the temporary tampon we possess an effectual method of combatting deep hemorrhage, and, if it be the vessels of the pia which particularly give trouble, they may be lifted up from their resting places, and secured ; or one may follow the suggestions of several surgeons, and leave one or more small serefines in place for

a day. We have simply to remember that the cerebral arteries are all terminal.

It has been shown that the brain resembles the kidney in this respect, that its proper vessels are excentrically directed, *i. e.* almost perpendicularly to its surface; consequently, if an incision be made in this same relative direction, but few of these will be wounded, and bleeding from such as are can be readily checked by tamponing.

With regard to brain abscess consequent upon middle ear disease, we have only to add a few suggestions as to the best points at which to trephine. According to Bergmann the best position for application of the instrument is above and behind the ear. Draw a line from the lower border of the orbit to the middle of the external ear and continue it backwards. Four centimetres back from the meatus externus erect a perpendicular to this line, and at a point four to five centimetres above the first on this second line the middle temporal lobe will be reached, without danger of injury to the posterior branch of the middle meningeal artery.

Macewen has proposed to make the first perforation through the squamous bone six centimetres above the ear, and then to follow with a second counter opening on a level with the floor of the abscess, wherever this may be found to be. Numerous cases are on record where death has resulted, according to Nancrede, from failure to make this second opening; although Bergmann considers such a drainage inadvisable, holding that a single opening is sufficient if drainage be favored by position; even irrigation, in his opinion, being at times injurious.

BRAIN TUMORS.

The various tumors of the brain are no longer of sole interest to the clinician and pathologist. Thanks to the latter and to the physiologists, a field of cerebral, and I may add cerebellar surgery has been opened to us, which was, a few years ago, literally *terra incognita*. Prompted by the brilliant discoveries of Hitzig, Fritsch, Ferrier, and others almost as well known, Macewen, Godlee and Horsley were quick to take practical advantage of their results, and to inaugurate a new era in surgical achievements; an epoch, indeed, whose remarkable results have only been surpassed by Mr. Horsley's recent successful removal of a myxoma from the spinal cord.

But little can be said here of brain tumors, save in a purely operative sense. Their general surgical characters have been well summarized by Dr. Zenner, of Cincinnati. Their principal features which produce symptoms are: First, location; second, size; third, character; fourth, rapidity and manner of growth; and fifth, extent to which they affect the surrounding brain tissue.

Considered in their surgical relations, we may, with Bergmann, divide them into, (a), the circumscribed or encapsulated; and (b), the infiltrated or diffuse, around which, as a rule, there is a zone of softening.

The former displace the brain substance, and may be enucleated; the latter destroy and supplant it, and in their removal one must remove a wide margin of surrounding tissue, or he must make total ablation, which is only possible in two places — the frontal and occipital extremities.

Yet another class of neoplasm deserves at least mention here — those growing centrally from the interior of the cranium; that is, from the bone or the dura. These, by pressure, may give rise to meningeal irritation, or pressure symptoms, or both. Providing that a reasonably satisfactory diagnosis can be made, it must be indeed an extensive growth from the cranial vault which shall contra-indicate operation. It is not so uncommon an event to see large areas of the bony covering of the brain removed for the extirpation of neoplasms. Gussenbauer has removed half the frontal bone with a little of the great wing of the sphenoid and the squamous, with undisturbed recovery. Macewen has done nearly the same thing. Langenbeck and Bergmann have excised large pieces of the dura, and they, as well as Kuster, not only have done this, but have removed a portion of the superior longitudinal sinus. No hesitation need, then, be felt in attacking any such lesion, so long as the general condition of the patient may warrant.

The question of what and how many brain tumors are operable has been best answered by White, whose account of 100 brain tumors met with in the dead room of Guy's Hospital has been studied with interest by every neurologist and surgeon. Of his 100 only nine could have been removed; namely, one tuberculous nodule, four sarcomas, two undetermined tumors, one cyst, and one myxoma. In

other words nine per cent. could have been attacked, providing a fairly accurate diagnosis had been made. Of these nine, five were located in the cerebellum, one in the frontal lobe, and one in the extremity of the occipital. It is very doubtful if these seven could have been recognized accurately enough during life to have justified attack; while the myxoma was impossible of diagnosis. It will thus be seen that by no means all tumors which can be diagnosed can be deemed suitable for operation.

OPERATION FOR INTRA-CRANIAL TUMOR.

With regard to the technique of operations on the cranial contents, Mr. Horsley has left little, if anything, to be added to the admirable papers which he has published already. It is, therefore, on account of the extreme importance of the subject and the general interest in it, rather than on account of any novelty or addition of importance to what he has already written, that I rehearse briefly a few of the most important points in these operations.

Preparation of the Patient.— The head should be shaved two or three days before the operation, carefully washed with green soap and ether, and from that time enveloped in a moist, antiseptic compress. Dr. Keen has called attention to the utility of shaving the scalp in every case of intra-cranial lesion, since in two cases he found scars after shaving, which were previously unnoticable. In other respects, patients should be prepared as for any other serious operation.

Chloroform should be the anæsthetic unless some peculiar circumstance make its administration unwise. We desire its contracting influence on the vessels of the brain. Morphia hypodermically administered has been advised by Mr. Horsley for the same purpose. Dr. Keen has resorted to ergot with the same intent. To the writer it would seem that a combination of the two might be preferable to either alone. In case the patient were already comatose, the hypodermic use of ergot alone would amply meet the indication. After localizing the lesion by methods previously spoken of, the writer would suggest the driving of a small, disinfected, headless tack through the scalp and into the bone, over the centre of the area previously located. After dissection of the external flap this tack will serve to point out accurately the location to be first attacked. An elastic

compress around the skull has been suggested to prevent hemorrhage during this superficial incision, but bleeding is easily checked with ordinary snap forceps. The query might arise whether it would not be advisable to put into practice Senn's suggestion, viz.: the isolation of the trachea and the application of a rubber bandage back of it around the whole of the neck. By this procedure he found that the most extensive operations could be made upon the brain or skull as bloodlessly as they are now made upon the extremities.

The *styptic* properties of cocaine solutions have led Keen and others to resort to them in brain surgery. Experience must show their real value. We are not yet in position to say whether their secondary relaxing effects upon the vessels will lead to any unpleasant secondary disturbances. For my own part, I have repeatedly seen benefit from the application of antipyrin solutions, on account of its styptic virtues. It is possible, therefor, that a spray of a one to forty antipyrin solution, directed upon the exposed brain tissue, would prove of considerable benefit. I have tested this matter by extensively uncovering the brains of dogs, and, after cutting in various directions, and causing free hemorrhage, have directed upon the parts a spray of three per cent. watery antipyrin solution. Invariably I have seen almost instantaneous evidence of its styptic effects, and should not hesitate to use it at any time in operating on the human brain.

The *semilunar flap* is certainly the proper shaped one to raise. It should have its apex in such a position, that, as the patient lies upon his back, drainage may take place by mere gravity. The periosteum preferably should be raised with the flap. Most authorities agree that in theory, as in practice, it is safer to make these operations under the spray, though I should prefer to use hydro-napthol in one to one thousand solution rather than any other antiseptic.

As between the *trephine* or hammer and *chisel*, the writer would prefer the former, at least for the preliminary opening. Access once gained to the brain, the original opening may be enlarged in any way. Those whose facilities permit the use of the surgical engine will find it to be an admirable adjunct to cranial surgery.

Since Macewen has taught us how to save the fragments of bone and restore them to place, his method has been widely tried and universally commended. Dr. Mills deems it inadvisable to reinsert large

or irregular areas of bone, or those with very jagged edges or inner surface, until they have been smoothed off; but, as we know, whenever it may be unwise to restore an integral portion of the bone it may be chipped into minute pieces, and these strewn over the external surface of the dura before replacing the flap of skin.

Dr. Dercum has furthermore called attention to the inadvisability of preserving fragments of bone in a bichloride solution for so long a time as might be necessary in certain cases, and thinks, most wisely, that the risk of long continued immersion would be greatly diminished by keeping them in fresh blood serum, or in the physiologist's salt solution.

The *dura mater* should be incised around a large part of the area at a distance of one-eighth to one-fourth of an inch from the edge of the bone, so that it may be afterward conveniently stitched. Vessels running in its substance may be secured before division. Its appearance is sometimes a guide to trouble beneath. In recent cases it is sometimes highly vascular; in old cases it may be yellowish or discolored. Whenever and wherever adherent, it should be freely excised. After this division one must first look for protrusion of the brain. Horsley claims that marked protrusion of the dura indicates pathological intra-cranial tension, obviously a sign of great importance. Next, the color of the brain should be observed, remembering that the cerebellum has normally a different appearance from the cerebrum. Jastrowitz advises us to trust to the sense of touch, when in doubt, rather than that of sight, in estimating the condition of the brain after this exposure. Sometimes uncertainty arises as to which convolution is the desired one. In such cases the battery has been applied by Horsley, Keen and Deaver with satisfactory result. This instrument, therefore, should be at hand. If manipulation fail to detect fluctuation or increased resistance, and nothing indicative be found upon the surface, further exploration can be conducted with a small aspirating needle, or with a blunt probe.

It is not likely that the careful separation of the convolutions with the rounded point of a probe, or even the pushing of the same through the layers of the cortex will give rise to any serious disturbance; while a needle or a probe may reveal the presence of pus, or, by the increased resistance offered, may indicate the presence of a tumor.

Should a *tumor* present or be discovered, the method of its removal must depend on its depth and character. Incisions should be directed perpendicularly to the cortex, for the purpose of avoiding hemorrhage and division of the conducting fibres. Removal of a layer of cortex, whether normal or abnormal, does not leave, as one might fear, a prominent gap with vertical sides, since in a short time, the most depressed portion is made to bulge almost to the level of the intact parts surrounding. In addition, the cut edges are also slightly everted, and, if less brain is removed than bone, the edges are extruded into the opening in the skull; thus, owing to natural arrangements, there is a continual normal tendency to hernia. But Bergmann and others have shown that this tendency to hernia-cerebri is in inverse ratio to the area of the bone removed. Experience has taught us that it is wise to remove brain tissue to an extent greater than was at first supposed. Bergmann and Horsley have made plain that which was not previously generally appreciated; that in all operations for epilepsy portions of the cortex nearest the evident lesions should be freely removed.

The matter of drainage must be decided by the circumstances attending each case. An abscess must plainly be drained so long as pus is discharged, but after the antiseptic removal of a tumor, the cavity should seldom be drained for more than twenty-four hours. During the first day there is usually slight or continuous oozing of blood and serum, but in all, save in abscess cases, the provision for drainage may be removed or the second day, and the wound dressed with reasonable pressure over the flap. Exudation naturally collects in this cavity, will be retained and will give rise to some pain and disturbance; but so long as symptoms from this are not severe, the wound may be left with confidence that the fluid will be reabsorbed and that the pressure will be the best check to protrusion.

DANGERS OF THE OPERATION.

The principal immediate dangers are two: hemorrhage and œdema. When the pia is cut its vessels may bleed freely, so that ligature or its equivalent may be demanded. The brain substance is not likely to give rise to alarm on this account, but that disastrous hemorrhage from unexpected sources may occur is a lesson we may

learn from Birdsall and Weir's case; here two bleeding points were discovered, one from near the straight sinus, probably belonging to the pedicle of the growth, the other probably a terminal branch of the posterior cerebral artery. Direct pressure checked their flow, and the cavity was filled with iodoform gauze. Nevertheless, oozing continued, and the man died of loss of blood, nine hours later.

Dr. Keen found in one of his cases that the vessels were so friable that if one end of the catgut ligature were pulled harder than the other, the vessel would be cut through; hence, absolute equality of traction may be essential.

Bergmann advises to tie arteries of appreciable size, and to avoid the tampon if possible. In the brain one may cut to the depth of four centimetres before an artery spurts, but when such a branch as one from the posterior cerebral is cut, experience shows that it must be secured. When necessary, however, one may do as he did in one case — tampon the cavity with iodoform gauze, and make secondary suture of the flap forty-eight hours later. After insertion of such a tampon, the dural and skin flaps are laid over it and an absorbent dressing applied over all. This tampon must be a rolled up wad of gauze, covered by as many more as may be needed, till the level of the skin be reached. It thus effects compression and drainage, and is much better than an inefficient plugging with a strip packed down in the ordinary manner. The subsequent removal of all this, with secondary suture, may call for a repetition of the anæsthetic, but this is much preferable to a failure by other methods.

A second danger is that of acute œdema. This sudden transudation, which perhaps is an exaggeration of the process by which the cerebro-spinal fluid is produced, may be brought about either by increase of intra-arterial pressure, or by obstruction of the venous channels of escape. Production of normal fluids seems to be in proportion to the former. Obstruction to venous return must be followed by similar obstruction to lymphatic return. Under this accumulation, however brought about, the brain becomes more sodden. Removal of a portion of the cranium is virtually a dimumition of the pressure normally exercised on its contents. Such relief of pressure is here, as elsewhere, often followed by a reaction with production of excess of fluid.

RESULTS.

I have collected 63 cases, which I have presented both in summary and in tabular form. From these I have excluded every case in which operation was not dictated alone by a study of phenomena relating to the nervous system. I have omitted all trephinings for recent hemorrhage, since these are not founded primarily on the principles of localization in our present acceptation of that term. Also, all operations for epilepsy, or insanity, or other trouble, when the operation has been apparently performed on account of external scars, or on general principles. Every recent case, or "primary operation," has been omitted. A large number of cases are thus excluded—cases which have a deep interest and significance of their own, yet which are not strictly germane to our subject this evening.

Of these 63 cases, 17 terminated fatally, though only five of these deaths can be properly attributed to the operation. Fifteen of the cases were abscesses—sub-dural or sub-cortical. In eleven cases the lesion was a tumor, exclusive of tubercular nodules. Of cysts, properly speaking, there were twelve. The 25 other cases were of a miscellaneous nature. In three cases the true character of the lesion was not revealed during the operation, and was only discovered at the autopsy. In two cases in which no palpable or visible lesion was discovered at the time of operating, the symptoms which lead to the performance of the operation were nevertheless relieved, though nothing but careful exploration was practised.

Of the 63 operations, 17 were made by American surgeons. Those who have themselves operated more than once are, with the number of their operations: Macewen, 12; Horsley, 11; Bergmann, 4; Weir, 3; Keen, 3; Park, 3.

I desire but to add that this evening's paper is but a brief abstract of a much more elaborate essay which I had prepared, but which time and circumstances would not permit me to present except in this form. I have, therefore, been compelled to omit all reference to details which yet have much intrinsic interest.

LAWYER (*in a hoarse whisper*).—"Doctor, I've got such a cold this morning that I can't speak the truth." DOCTOR (*Sympathetically*).—"I'm glad it isn't anything to interfere with your business."—*Boston Herald.*

SOME QUESTIONS IN THERAPEUTICS.

AN OPENING ADDRESS BY JOHN H. PRYOR, M. D.
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If a man know his inheritance it may become beneficient. A proper appreciation of the knowledge of the past promotes progress, but a blind acceptance of the legacy anchors the mind among influences which may fetter its powers and be pernicious. It is well that a student should learn this lesson at the beginning of his career.

Each member of a class brings with him opinions or ideas which are evidence of his surroundings or his discriminating mode of thought. Some are iconoclasts who have examined beliefs and thrown them aside. For every step they take in advance a shattered tradition or dogma is left to mark their path. Others, faltering along the way, pick them up and thus it takes years to annihilate rejected knowledge.

One comes filled with enthusiasm and a desire to search for vital truths, to find more light to shed on the problems of yesterday. Another has journeyed along the old roads of thought with misleading skepticism as a guide, and his vague ideas are shaped into expression by the remark, "There is nothing in therapeutics. It is experimental and not scientific. Erudite men are skeptical." Now, there are places where those stale words can be uttered with impunity; but if the listener has a high conception of the word physician, the assertion jars, and raises a train of thought which is apt to be uncomplimentary. By observation it becomes apparent that views which lead to blind faith or unhealthy skepticism steal into the mind like dreams, while the higher faculties are resting. They are the offspring of an inactive period and never disturb serenity by stimulating ambition or energy. True, if one hug such delusions, he is of less benefit in the sick room than an educated nurse; but he wins contentment, and time to grumble which requires little exertion. If this habit grow it becomes almost unconquerable and acts as an obstacle through life. The unfortunate individual represents the ignorance and superstition of the ancients and is a child of the past in its worst sense. The results of this tendency extend in a wide circle and form a prime cause of insufficient and improper education in an important branch of medicine.

By considering this factor we find an explanation why the study of therapeutics has been neglected by many and misunderstood by more.

We admit, at the start, that there was a time when harsh criticism was deserved, and thus avoid a communication from the stranger who has lost his way in the dark ages and occasionally notifies us of his whereabouts by announcing some grotesque relic of the humoral period, found in the graveyard of dead ideas.

We know what atrocities have been committed in the name of medicine. We have heard of heroic treatment, huge nauseous doses, false theories and all the other harrowing features of the days described by that trite expression, "The remedy is worse than the disease."

Many of the traditions and dogmas of the past exist to-day, and we hate the memory of them more because the effects of a vicious period still linger among us. The records have been searched and that which is good was preserved. It is crystalized in a new form. The identity may be lost, but every cluster of facts contains many old and imperishable. They are in the literature and in the world. But we shall not be judged by the dreary ochoes of the past. The leading minds have faced the other way and have been preaching a new gospel for half a century. Although the tremendous advance in therapeutics was foreshadowed by the adoption of new methods of investigation at the opening of this century, more than fifty years elapsed before the new era which was destined to revolutionize therapeutic study was born. Since that time unprecedented activity in scientific research has placed tnis branch of medicine in a position to win the enthusiast. The student can appreciate how recently this change occurred by referring to his text books. With the exception of a few classic essays, such as Headland's and Flemming's, which appeared about 1850, the authors who have contributed to create the new age have written since 1860. It must be remembered, however, that the development of scientific and rational treatment of disease has been the result of many allied forces. A consideration of the more potent of these will afford an opportunity to point out intelligent methods of study and reveal the fact that they are not followed so closely as they might be. Such a review may also trace the causes and effects of ignorance further and dispel some fallacies of popular belief.

The term therapeutics should not receive a narrow construction. For the scope of this subject includes not only all the information pertaining to materia medica and therapeutics from a natural law to the last drug mentioned in the dispensitory, but also all the knowledge which can be utilized in forming a diagnosis and becoming acquainted with the character of the patient and the disease. The armamentarium of the therapeutist is not composed of weapons which can be contained or administered in a teaspoon. For instance, rest is a remedy.

When the student debates the question, "Is the study of therapeutics experimental or scientific?" it may be well to remember what comprises a knowledge of the subject.

These two broad divisions may be defined by considering two short questions: What is the case for treatment? and What shall be done for its cure or relief? Ability to decide the first is gained by a general knowledge of medicine, which implies a familiarity with the learning in every department. Proficiency and range of attainment in these will be the best guard against unreasonable action and the surest guide for the application of remedies. The brilliant discoveries and achievements which have made the last 20 years the brightest in medical annals, have resulted in a reconstruction of the fundamental principles of therapeutics, and along these lines it has become scientific and made more progress in two decades than in all previous years since the first cry of pain. A few illustrations will suffice to show the manner in which this has been accomplished. The physiologist and chemist have taught the means which nature employs to restore health and the precise methods for detecting normal or disordered functions. The pathologist the causation, morbid anatomy, natural history of disease and modes of death; also, that many diseases are self-limited, and have a tendency to recovery; and the clinician, that many diseases are uninfluenced in their course by any interference, and how the ever changing play of morbid action is modified by treatment.

Dyspepsia was once regarded as a functional disease diagnosed by obscure symptoms. To-day the contents of the stomach can be examined for the cause, and the physiology and chemistry of digestion are sufficiently understood to supply or neutralize an agent needed or in excess. The recognition of the causes of disease has made

many preventable and others curable. As an instance, the parasitic diseases of the skin are cured by killing the disturbing element. Still more by a definite knowledge of the causation, morbid anatomy and phases of a disease, often incurable, the treatment has become more intelligent and potent for relief.

Consumption is no more regarded by thinking men as a necessarily fatal disease, to be divided into two stages for the purpose of prescribing — one for sweet and nauseous doses, and the other for cough mixtures and opiates.

The hope of mastering the scourge has furnished new procedures for battling with the direct and indirect causes, and the remedy is addressed in accordance with the diseased process, whether it be a pleuritis, localized bronchitis, septicæmic fever, or tubercular pneumonia. Acute diseases having a definite duration, as typhoid fever and pneumonia, are treated on the expectant plan. That means the patient is supported and prepared to stand the continued attack, and dangers are met or avoided so far as possible. These dangers can only be perceived by a clear understanding of the natural history of disease, and in this way the treatment of a large class of cases which has long been irrational becomes relatively scientific. But these guides are not always followed. Old methods still prevail and the modern ones are misunderstood or not generally accepted.

The expectant plan is employed in ridiculous fashion, as though saturation of the system with alcohol and opium would prevent heart failure or perforation in typhoid. Like advising a man to wear a heavy overcoat in the summer months — it makes a heavy, uncomfortable load, and probably will not be needed, but a cold day might come and then it would be found convenient. Antipyretics are used indiscriminately and often a greater danger is incurred by cardiac depression than the elevated temperature, whose ill effects are so greatly overestimated. Carbonate of ammonia is still thought by those who have not read the signs of the times to be the sheet anchor in pneumonia, and the heart is overstimulated and the stomach irritated from the beginning to the end. The lung, however, passes through the same histological changes as it probably did sometime after ammonia was deposited. Some will not learn that the use of many drugs, as stimulants, is like borrowing money at 100 per cent. to

tide over a financial crisis, and that it is best to wait until the emergency calls for their administration. Affections are prescribed for by name. Epilepsy is known to be caused by manifold disordered conditions, but the effort for alleviation frequently consists of a prescription from a formulary, or a bounteous supply of bromide of potassium. Diseases known to be self-limited are said to have been broken up, and the fact that no two cases or epidemics are alike does not deter the careless observer from reciting a remarkably successful experience with the topical application of the tincture of iron in diptheria.

Thus inaccurate conclusions, based on deficient examinations or faculty education, give rise to strange beliefs and exaggerated notions so strong that the victim reminds one of the "old woman who filled bottles with water from the River Seine and heard of so many cures wrought by it on all sides that she died fully convinced that the water of that river was a sure cure for all the ills of the human race." Among others the disappointment which comes from errors in judgment and imperfect learning, causes the murmur, "I did not get the result I expected, but I did not expect that I would." Thus it grows plainer that knowledge is slowly disseminated, and that there are two classes — one in advance and the other struggling by the way. One mercilessly attacking decrepit theories, and the other retarding progress by clinging to old methods.

Now let us turn to literature and the evidence will accumulate. A guide should be written to teach the student what to read and how to analyze the mass of collected statements. A few words of advice may not be out of place. During the college days give your time to properly recommended text books. They contain facts carefully gleaned, and the popularity of the author is usually an indication that he is wisely conservative. One must learn to decide, however, what the opinion of an authority is worth, and not accept his word as law. I appreciate that this is a delicate matter around which danger lurks, but the safe course lies between two extremes. You have a right to inquire how an opinion was formed, what the process of reasoning or experiment was, and what conclusions are offered to fortify the position. Remember that many rules for direction in therapeutics are relative only, and not general laws capable of application under all conditions. This is particularly true of dosage, and largely so of the

application of remedies to a definite disease or its symptoms. Every problem in therapeutics has to do with human nature. Each individual has a personality or self-identity made up of peculiar characteristics, some inherited, others the result of mode of life or environment. These are manifested in health and become active, powerful elements in disease. They pay no attention to written laws. An acquaintance with them is gained by clinical work, and until that time arrives it is best to accept the statement of the writer as the nearest approach to safe limits—with the reservation that it must be adhered to or departed from in accordance with the indications which the case may present. If, on the other hand, the dicta of an authority be followed absolutely, the student may find himself in the ludicrous position of the physician depicted by Moliere in the following dialogue, between Dr. Tomes and Lisette:

Tomes—"How is the coachman?"

Lisette—"He is dead."

Tomes—"Dead?"

Lisette—"Yes."

Tomes—"That is impossible."

Lisette—"It may be impossible, but it is so."

Tomes—"He cannot be dead I say."

Lisette—"I tell you he is dead and buried."

Tomes—"You are mistaken."

Lisette—"I saw it."

Tomes—"It is impossible. Hippocrates says that such diseases do not terminate till the fourteenth or twenty-first day, and it is only six days since he was taken sick."

Lisette—"Hippocrates may say what he pleases, but the coachman is dead."

The facts of most value come from the clinician and it is to be regretted that modern works on practice devote little attention to symptomalogy and treatment. There is also occasion for regret that many who are not clinicians write profusely on these subjects for the journals. If only those would appear in print which have something to offer in the shape of a valuable contribution, there would be many less journals and more good ones. The men who should write are too busy and the consequence is so well described by Bartholow that I prefer he

should say it. "The earliest announcements are not unfrequently given forth by medical quid nuncs who are more enthusiastic than logical, more sensational than exact, and more concerned to advertise their own doings than to give expression to faithful operation." Only a small proportion of the articles published possess any intrinsic value and one must inspect a great deal of rubbish to collect useful material. Great harm is therefore done by the omniverous reader who tries the new things without any discretion. Let me cite a few instances to show the result. Bergeon's treatment of phthisis is an example of the fashion although that had authority behind it which proved misleading. If a drug is used improperly at first on account of inattention to directions for its use the mistake grows and becomes common. Nitrite of amyl is employed in all forms of dyspnœa and asthma and sometimes fails. Yet Brunton explicitly stated the conditions which make its exhibition successful. Digitalis is prescribed for every form of heart disease. No matter what the question in dynamics, vascular tension or obstruction, condition of cardiac fibre or nerves, it is a sovereign remedy for many quaint situations and has usurped the place to a certain extent of the compound "fearfully and wonderfully made." The dose and time are easy to remember — ten drops of the tincture every four hours. This produces an effect after a while which may be cumulative if the remedy be given by the mouth. Not long ago a young physician was heard to give these directions for a case which called for immediate relief and he was advised to crowd the drug for a physiological effect or tell the friends if the patient should die before the time for the next portion arrives that they need not continue it. Another great cause of these errors lies in erroneous modes of administration and this brings us to a consideration of the methods employed to determine the action of remedial agents in health and disease. They are four in number — empirical, physiological, clinical and homœopathic. This division may not be made in the books but a reason for it can be given. The manner in which a subject is presented to the mind may influence judgment and perhaps it is best that your attention should be attracted to the system of medicine called homœopathy in the common way. If the question has not already been asked it soon will be, in a delightfully blunt style. Are you an allopath or a homœopath? Now this question is not intentionally offensive. The public is notoriously ignorant about

matters relating to medicine. There has been some improvement, but medical learning is not alarmingly diffused or epidemic just yet. Perhaps the condition is best expressed by the remark of the Kentuckian who said "the sum total of knowledge is right smart great but it isn't concentrated much." But prejudice in regard to therapeutics abounds and is exuberant. The people inherit it as they do political belief. I have told you that the myths of the past exist in popular belief, and traditions are in the world. That question is evidence of it. The name allopath was coined by Hahnemann, the father of homœopathy, to designate all those who did not accept his theories. As a matter of fact the word should be meaningless because there never was, and never will be, such a thing as an allopath or allopathist. But a word is seldom better than the ideas it represents and when used by the people it means big doses, nauseous medicines and heroic measures. Whether the meaning is extended and magnified by other unjust and false prejudices, depends upon the vicious education of the masses by ignorant practicioners and sagacious homœopaths, who cunningly make a wide distinction by drawing facts from the imagination to spread the idea that there are schools in medicine and one of them is woefully, hopelessly wrong. That the homœopaths encourage these impressions is shown by the literature of that school and its history, and they are aided in their efforts by the unprogressive who cling to the mistakes which gave rise to them. The chemist has extracted the alkaloids and active principles of drugs and the pharmacist by new preparations has made them palatable. Thanks to Ringer, and many others, the mysterious action of small doses is fast becoming understood in a rational way and there has never been a time in the existence of any school or pathy when the advanced men gave so little medicine as now. It should be your duty to make warfare on tiresome and unfounded accusations which are propagated with an idea to business and spring from the well intended blunders of your ancestors. But meet them squarely with no carping or idle criticism. Remember that men with lofty motive and noble character may hold to a belief which you may not be able to accept.

Now what is homœopathy? A school in medicine with many adherents which originated in 1790, just 69 years before the new age in medicine which began with Virchow, in 1859. It is called by some the

new school obviously to distinguish it from an old school which has almost passed out of existence. The cause of its birth and presence among us is owing largely to the vigorous empiricism of the past. The homœopath is supposed to be educated in every branch excepting therapeutics just as you are. In therapeutics, however, their manner of study and practice are governed by well defined laws and the fact that the vast majority of those in the profession have never accepted these so-called laws as scientific or rational, makes the number who do, a school. The gist of the matter is found in the method of the application of remedies. Nothing can be gained by discussing the question of high potencies, imaginary powers and the use of one remedy. Anyone who knows much of the practice of to-day will tell you that these matters are adjusting themselves. A drug is given to a healthy individual in sufficient quantity to produce marked symptoms or effects. If a person when ill displays the same symptoms, the drug is given in minimum doses in compliance with the alleged law, *similia similibus curantur*. One who acts in accordance with this dogma only perpetuates a form of empiricism in that the treatment is based upon symptoms with no reference to the diagnosis or pathology of disease. Consequently there never have been, and probably never will be, any scientific results, in the way of preventing or removing a disease, acheived by blind adherence to a curious theory which becomes more restricted in its range by every advance in medicine. The principle of homœopathy must be universally true or false, and as one of its advocates has said, "If the principles of homœopathy be true, no finite power can destroy it, and if false, no earthly power can save it." After 88 years of trial, pure homœopathy is only found in the camp of the ignorant and unprogressive. The younger men of that school are crying out against coercion and the fettering influence of limited action. The eclectic homœopath announces that homœopathy is the *best* guide and not the *only* guide in therapeutics and that his use of it will be discretionary. The literature of homœopathy reveals how much the influence of progress is felt — how discovery and advance expose the fallacy and rapidly limit its application to diseases not understood. As an illustration, I cull a few choice quotations from a lament called "A Critical Period for Homœopathy," by Dr. Hale, reprinted from the "American Homœopathist, 1877." "It must appear," he says, "to the most superficial observer in the homœ-

pathic school, that the present is a most critical period in its history. In fact, there is absolute danger unless some line of action which shall place our school in a different position — a position to avert the crisis, or modify its effects—that we shall soon be threatened by adsorption into the allopathic school." "The most enthusiastic will claim that the opposite school are becoming converted to homœopathy." "But this will never be admitted by them, for they will never allow the truth of our similia. "And what is still more important, the *public* will not see or believe that the allopaths are becoming homœopaths. (The word public in italics.) "A portion of our school who take a despondent view of affairs affirm that the great allopathic anaconda will swallow entire the homœopathic school or, like the infusiorial Hydra, will gradually enfold us by its yielding mass and slowly absorb us." "How are we to retain our cherished remedies? How are we to keep pace with the grand studies in all the sciences and arts which pertain to medicine and still retain all the valuable characteristics of the homœopathic school?" The last plaintive soliloquy of the homœopath might be answered in this way: Use the text books and journals and all the new discoveries of the other so-called school, but keep still about it. Let it educate you in all the branches, including much that pertains to therapeutics, but continue to deride it and lie about it. Foster prejudice and delusions by stereotyped reference to strong medicines, and ruined constitutions, and other quaint notions, and act as though you believed them. Say that you belong to the advanced school, or both schools if necessary, to catch business. Some men do this with honest motive but it is hurting homœopathy. Claim that a system which is fashionable must be scientific and successful. The imitation of logic will not be detected. Whether a general practicioner or a specialist be homœopathic, and explain the change in your school as best you can. All of these methods will render it impossible to interchange thoughts with your colaborers who instruct you and give you the ideas to work with, but they also prevent competition by winning the public and they will not discriminate as to ability because the patron will be educated in those matters which relate to schools. Now if this course will not win success, there is another one open. The state society lost representation in the national body, not long ago, to encourage the abolition of schools and the honest homœopath who desires a medical millenium has only to

exert the right influence and hurry the day when it shall be said: Allopathy and homœopathy have been relegated to their proper sphere among the myths of the past. The profession is united by one motive and a common aim — to treat the sick by every known method. One representing these ideas is called a physician and he depends upon his capability for success or advancement rather than business sagacity or by using a school as an advertisement. Time and progress are smoothing the differences away and the dividing lines will grow more indistinguishable. If the student accepts popular opinion to mark the distinction, he will meet some homœopaths who will remind him of the incident when two Irishmen met and thought they recognized each other. The mistake became apparent and one said, "You thought it was me and I thought it was you and, begorrah, it was nayther of us."

There has been much discussion devoted to the merits of the physiological, empirical and clinical methods of study and the result has usually been that all are necessary and have been instrumental for good. But the distinctive virtues and characters of each are often misunderstood. Consequently they are frequently misapplied. Objections have also been raised to each of them, some from a misconception while others are valid. What is often called empiricism is not empiricism at all. As an illustration the use of antipyrine for headache might be called empirical and it would be if employed in every case. But when it is observed that the remedy is valuable only in certain conditions and proves efficacious if directed to ameliorate them, the vicious effects of empiricism are obviated and the drug has clinical value. If the word empirical is to remain in the medical vocabulary it should be used correctly and not employed to shield errors. Some of the most valuable remedies of the therapeutist have been introduced in that way and will continue to be if reinforced by clinical test. Even the specific remedies, as mercury and quinine, would be valueless if given at random and with no reference to the character of the individual and the disease. Unquestionably the demonstration of effects by the physiological method is more commendable, and the fact that it is displacing the more inexact and indefinite modes of experiment should cause rejoicing. Yet the same fact holds true with this method. An acquaintance with the mode of action and precise data of physiological effects supplies a

means for determining when it is required and for judging of the result. So far it is scientific. But the claim must be demonstrated in the sick room. That is the court of last resort, when the verdict is final and the evidence is submitted to clinical test. Immediately the question takes on new phases. For science and art are united. They blend as the clouds do and are as inseparable. It is because they are so intimately associated, and the combination is so unusual, that clinicians are rare. To become one requires long preparation, unceasing toil and natural aptitude or the development of all the faculties. It calls for the highest degree of proficiency and is, therefore, the goal for which an ambitious student will strive. The inquirer sometimes asks what is the process of reasoning which enables the experienced physician to reach conclusions and prescribe almost intuitively. By pursuing the question you will become acquainted with some of the most interesting problems in the therapeutic art and perhaps reach a solution of difficulties which perplex the beginner in every direction. To decide when to prescribe a remedy, what to prescribe, why and how it is selected, how to administer it and in what form and quantity, is an art which can only be learned by a patient and tireless study of disease and its every manifestation. There is only time for a suggestion which occurs to a young searcher after the secret. Older and accomplished teachers will offer more important ones and reveal their practicability at the bedside.

A knowledge of human nature is an important item. Not that there is any necessity for proving the experience of an old physician true who summed up the result of observation by remarking "that one half of the world is busy trying to get the other half in trouble," but because many truths are hidden unless you probe for them. In this way the enigmas weaved by temperament, idiosyncrasy and other factors equally elusive can be unraveled.

Give much time and deep scrutiny to the language of symptoms for it is hard to read. Learn to group them and make them tell hidden truths. Tear them apart or make them cluster in a definite form. Watch them at play and in conflict and note how they gather like a crowd when something has happened, and if some one is absent that usually comes, inquire the reason. If you will play detective

your place is where they appear, at the bedside, and the most trivial must not evade you.

The physical signs suffice in many cases for diagnosis but the symptoms must be weighed and analyzed to afford relief. Symtomatology is becoming a lost art and the study must be revived. Future progress in therapeutics depends largely on renewed attention to that branch. If we are to have exact and trustworthy records of clinical results they must be based upon discrimination and division of cases. Again to alleviate suffering and produce comfort, symptoms must be recognized and treated, no matter what the cause of the complaint may be or the means of its removal. By examining the symptoms closely and noticing their relation one can often afford relief by removing one which is the cause of the others. A much better plan than by putting them all to route by liberal doses of omnium gatherum. Dosage, the manner of selecting a drug and the preparations, are subjects which will be considered at length in the regular course and are too broad to be touched upon superficially at this time. The hope of continued advance in therapeutics rests so largely upon reliable clinical work, that it seems proper to refer, in closing, to some errors which have crept into the profession and threaten great harm. So long as polypharmacy continues to such an extent, it will be impossible to collect results and learn the value of remedies. By employing the flood of new ones, and preparations in which the form may not be the same, or the dose doubtful, the physician too often accepts an unscientific opinion, gains no definite physiological effect and forgets old friends which might be relied upon. Ages of empiricism left us some facts. A myriad of drugs misunderstood and misapplied, and the results of experience "in a shapeless mass of inexact ideas." Now were it not for a few leading minds the next century would be little better off, so far as a portion of the profession is concerned. Although efforts are constantly being made to revise the pharmacopœia and abridge the number of drugs, new ones pour into the market, and many try one after the other until it has become fashionable. In fact, if a young practitioner has not tried the last new drug, he is considered behind the times. This is not done with any idea of experimenting, but the journals teem with discoveries and the pace is so rapid that occasionally enthusiasm runs ahead of judgment.

The short extracts with incomplete information and a foreign name to fill the place for missing reasons, are very popular. They appear well in a compilation, but the patient cannot appreciate the clever idea. He is in the wrong position and had rather receive certain benefits in the shape of a remedy with which the prescriber is familiar and which has proved to have merit. It takes time to learn the powers of a drug even when its nature and physiological action are understood, and this thought calls up a greater danger, in fact an abuse, which by wide spread indulgence is becoming an abominable nuisance. I refer to proprietary medicines and new preparations. The attack upon these is sometimes too sweeping, for there are a few valuable and elegant pharmaceutical preparations which although the exact contents and mode of combination are not known, serve a purpose and should not be discriminated against too strongly. The physician has a right, however, when any doubt exists as to the contents and manner of preparation to demand an honest working formula that he may know what he is using.

By rigid and revolutionary measures progress in scientific pharmacy might be impeded instead of encouraged, and therefore it is well to remember that there are two sides to this important question and a limit must be established somewhere. Antipyrin is an example of this class in that it is patented; but one would not be justified in refusing to employ it for that reason. However, such instances are rare and therefore the question should be attacked vigorously, because dangers are increasing and the vast amount of harm caused the public and scientific medicine by the flood of patent, trade mark and copyright preparations, calls for a decided stand on the part of the medical profession. The abuse is growing and what is still worse the habit has taken a firm hold on some of the best physicians. By inquiry it has been learned that the leading druggists in that portion of our city where intelligence is supposed to abide, find that two-fifths of all prescriptions call for proprietary medicines. This proportion would be increased if those preparations in the form of pill or solution which contain numerous drugs combined with the intention of rendering thought or a study of the pharmacœpia unnecessary were added to the list. This fact is most surprising and disgraceful. Evidently the new teacher in therapeutics is the engaging commercial traveler who

with much suavity and more impertinence reels off a memorized narrative to convince the listener of the credulity and gullibility of others who have stood the infliction and seemed to enjoy it. Is there any limit? Recently a nostrum has found its way into every office which, if its claims are true, will render any lectures upon treatment by the professor of gynæcology unnecessary. They can be furnished all printed on a label in condensed form with a compound infallible but mysterious. An extended consideration of this subject may be of interest to the student, and I take pleasure in referring you to an exhaustive essay by Dr. Lindsley published in the proceedings of Conn. Medical Society, for 1882, and many others to be found in current literature. It is to be hoped that a matter so detrimental and demoralizing to the best interests of medicine will invite close attention and prevent you from imitating the large number of physicians who persist in the use of mixtures which destroy scientific nomenclature and classification, render results valueless because the character of the nostrum is unknown, and encourage rank empiricism. These manufactured articles can always be replaced by officinal preparations of standard and unchanging quality, and the druggist, instead of being led into the custom of counter prescribing, is encouraged to improve the art and science of pharmacy. He is governed by the physician, and if shelves are loaded down with trash, it is only significant of the fact that his legitimate business is being ruined, because physicians are the dupes of manufacturing concerns and follow their directions more closely than the enlightened knowledge contained in text books and treatises.

About 25 years ago, Dr. Churchill announced that the syrup of the hypophosphites was a specific for tuberculosis. No one has proved this assertion true. Let those who know how commonly it is employed as a cure for this disease ponder the reason, and the blunders of the past will be found interwoven with the dangers of to-day to form a commentary upon the lamentable condition caused by neglected study of the highest and most important branch of medical science. The object of this introductory lecture has been to point out some of the dangers which beset the student of medicine. As instruction continues, and the details of the various subjects are entered into, they will become more apparent.

If you will leave some of them at the threshold and avoid others which will increase in importance, you will be in a position to take advantage of one of the most fascinating studies in medicine. A broad knowledge of therapeutics is the culmination of medical learning. Every effort tends in that direction and to-day no field in medicine offers such stupendous possibilities.

ACTION OF BITTERS.—From recent experiments Prof. Botkin (*L'Union Medicale du Canada*) asserts that,

1. Bitters diminish the digestive power and retard digestion; they diminish the quantity of peptones.

2. Bitters diminish the secretion of the gastric juice. If they produce a feeling of hunger, it is only by irritating the gastric mucous membrane.

3. Bitters have no influence upon the secretion of the pancreatic juice or the bile.

4. Bitters not only do not diminish, but actually promote fermentation in the contents of the stomach.

From all this, the author is led to believe, contrary to current medical views, that bitters are of no use in the treatment of disorders of digestion. *Dietic Gazette.*

THE DOCTOR'S LIFE.

"A doctor's life, Mr. Ledbury, is not a life of *rosæ fol.*"
—ALBERT SMITH.

The doctor's life, sir, is a life of thorn,
With few rose-leaves, less laurel, and small mell;
But much salts, senna, jalap, caromel,
And such like messes, nauseous, sour, forlorn.

At midnight you are called: a babe is born:
Retnrned to bed, ding goes the shrill-tongued bell!
You almost wish the patients were in —— well,
In a sound state of health — at least till morn.

A noodle breaks his leg: you amputate:
You take it nearly off, and send your bill;
He swears you did the operation ill,
And sues you for malpractice. Such is fate.

Young man, if thou love ease, be a proctor,
A priest, a pedler, rather than a doctor.

F. BRADNACK, M. D.

The Medical Press

OF WESTERN NEW YORK.

Published by THE LAKESIDE PUBLISHING CO., Buffalo, N. Y.

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Subscription Price: $2.00 per Annum.

All business communications should be addressed to THE LAKESIDE PUBLISHING CO., Publishers, 41–43 Franklin Street; all others to the Editor, 510 Delaware Avenue.

BUFFALO, N. Y., OCTOBER, 1888.

THE BUSINESS MANAGEMENT OF "THE MEDICAL PRESS."

With this issue the business management of THE MEDICAL PRESS OF WESTERN NEW YORK passes into the hands of *The Lakeside Publishing Company*, Nos. 41 - 43 Franklin Street, Buffalo, N. Y., and to them all business communications, subscriptions, advertising matter, etc., should be addressed. The conduct of the journal will in no respect be changed, save in those directions in which experience may show opportunity for improvement. Its editorial staff will continue as before, and their only aim will be to make it the exponent of the best work among the profession in the territory it is claimed to represent.

With such an enterprising firm pushing its business interests our readers may confidently expect to see still further improvement in every respect.

THE FIRST CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS.

The first Congress of American Physicians has just been held, with a success which probably even its originators scarcely ventured to expect. Conceived by a prominent member of The

American Surgical Association — Dr. Mastin — two years ago, and conducted under an executive committee of which Dr. Pepper was chairman, it has brought about results of which all concerned in its meetings may well be proud.

Some of our readers may be in error in thinking that this organization is in any sense a rival of The American Medical Association. It entertains toward this latter body about the same relation that the National Academy of Science does toward the Association for the Advancement of Science. The larger body is, in each case, composed in large measure of men from all sections, who are without special pretensions or special claims. In the case of the American Medical Association it is notorious that anyone can join who has enough local influence to secure his selection as a delegate. And we are not finding fault with this arrangement, since such a body has its sphere of usefulness even though its benefits are abused by some.

But the Congress is composed entirely of special societies — in number a dozen — each of which is extremely careful about its membership and to any of which it is an honor to belong, all of whose members are devoted to scientific work of the highest order. Each of these societies preserves its autonomy and all its proper rights and privileges, and joins, triennially, in the general meetings in which some topic of common interest is discussed by specialists well fitted to treat of it. Thus the individual work of each body is not in the slightest interfered with, while at the same time the members are given an opportunity of becomming acquainted with other workers and of making the acquaintance of men whom the medical world unite to honor.

The first of the general meetings was devoted to the subject of intestinal obstruction, with leading addresses by Drs. Fitz, of Boston, and Senn, of Milwaukee. The latter in the course of his remarks made one point of importance in connection with the rectal insufflation of hydrogen, which he had already advocated in connection with the diagnosis of gunshot-wounds of the intestine, viz. : that it may be made of diagnostic value in determining whether the obstruction is above or below the ileocæcal valve. This is done by passing it into the rectum ; if it be heard to gurgle through the valve we must believe the colon to be unobstructed ; but if this be not heard we may infer

that the small intestines are free from obstruction. The paper was discussed by men as eminent as Dr. Ord and Mr. Durham, of London, and Prof. Annandale of Edinburg.

The second night was devoted to the subject of cerebral localization in its practical relations. The medical side of this topic was gracefully assumed by Dr. Mills, of Philadelphia. The paper published in this issue is a brief abstract of the surgical presentation of the same. The event of the Congress was the discussion of this topic by Dr. Ferrier and Mr. Victor Horsley, of London, and Drs. Starr, and Weir, of New York, and Keen, of Philadelphia. Dr. Ferrier read extracts from the editorial columns of the *London Lancet*, of only five years ago, in which the very operations he then proposed, and which are now boldly carried out, were stigmatized as unjustifiable, foolhardy, or worse.

Mr. Horsley who has done more to elucidate this branch of surgery than any man living, developed a number of new points of anatomical or surgical interest, and was as warmely received and as eagerly listened to as any man ever was. Dr. Starr showed how we no longer had *a* speech center, but that in its place we had a number of centers, each presiding over some peculiar characteristic or feature of spoken language. Dr. Keen framed in words a new idea when he showed that as the abdomen and thorax contained various viscera, which might be attacked separately, so the cranium now must be regarded as containing various visceral portions of the nervous system, each of which was individually open to operation; *e. g.* the arm center, the leg center, etc. Altogether there were many present, in the large audience, who did not hesitate to say that the evenings discussion was an event in the annals of our country's medical history.

The third evening was made delightful by the address of Dr. Billings, the President of the Congress, on the subject of Medical Museums. Attention was given to the various collections of the world, with statistics of the number of specimens in each, but the address was mainly devoted to the needs and the aims of the Army Museum, whose presiding genius he is, and about which he gave most valuable and interesting data. The library now contains over 90,000 bound volumes, and in some departments the museum collection is peculiarly rich.

In the various sectional meetings some 220 papers were read, almost every one of them based on original work and presenting something new and of value. When the members of the Congress contrast the results acchieved by quiet, unostentatious work with those of last year's International Affair, they may well feel proud of their work, for it was certainly of a higher order. And when they remember their foreign guests who were attracted to this country by the programme presented for their criticism, they may well rest satisfied that no such gathering has ever taken place in this country if, indeed, its parallel has ever been held.

THE 43 annual session of the Medical Department of the University of Buffalo opened most auspiciously Sept. 24th, with a larger class than was ever before present at such a time. The steady augmentation of its classes is the most gratifying evidence of a well-deserved prosperity which the school could enjoy, and speaks volumes for the earnestness of both teachers and pupils. The opening address, given by Dr. J. H. Pryor, will be found in the present issue and will well repay perusal, since it is the outcome of careful thought and diligent research in the broad field of therapeutics. The General Hospital, furthermore, is more than ever full of clinical material and there bids fair to be a superabundance of cases of great interest and instructiveness.

* * *

DR. F. R. CAMPBELL, who was well known as a most talented and versatile physician, succumbed, Sept. 14th, to the ravages of typhoid fever, at the early age of 28. In his case the disease seemed to pursue its most malignant tendencies, and several times during its course his friends were startled by rumors of his impending death. Only by the most assiduous care was he kept among the living during the last two weeks of his sickness.

He was a graduate of New York and of the Buffalo Medical School. As one of the daily papers aptly said, "he was one of the most popular among the younger physicians of Buffalo. It was not alone through proficiency in his profession that he was known, but every praiseworthy attribute of the scholar, the professional man, and the esteemed citizen were characteristics of his daily life."

The ink was scarcely dry on the pages of his new book, "The Language of Medicine," when he was taken sick. It was largely the over work entailed in its preparation which contributed to his illness.

His death is an irreparable loss to the Niagara University in which he filled the chair of Materia Medica; and will be severely felt in all the professional circles of this city.

* * *

THE profession of Ontario County have sustained a severe loss in the death of Dr. Harvey Jewett, of Canandaigna, who died Sept. 4th. He had attained the ripe age of 79, and had practiced medicine ever since his early manhood. During this time he had acquired a vast store of that knowledge which only years can bring. He was prominent not alone in local circles but in the State Medical Society, and scarcely one of its members was better or more widely known. He will be sorely missed, not only as a counselor but as a noble example of sterling and christian manhood.

* * *

THE death of Dr. Z. H. Blake, who died Sept. 8th, has removed from Dansville one of its prominent men and old practitioners, and has taken from the alumni roll of the Buffalo Medical College one of the two surviving members of the first class which graduated from that institution, in 1847. Dr. Blake and Dr. Jewett were both Curators of the College and both took the heartiest interest in its progress and growth. Dr. Blake will be long remembered for his services on the Provost Board during the war, and will be missed deeply by all who knew him and who admired his kindness of heart.

* * *

DR. ANNA FISKE CROWELL, of Buffalo, died Sept. 2nd, after a brief but acute sickness. She was a genuine acquisition to the profession of the city, being not only a well-versed practitioner but an enthusiastic student. She had enjoyed advantages such as few ladies in the profession have experienced, and to a broad general education had added that knowledge of affairs which extensive travel affords. Hers was a serious loss, and has called forth to her relatives many and sincere expressions of sympathy and grief.

Dr. Bradnack's satire against quackery, entitled "Dr. Chase's Handbill," is now on sale at Peter Paul & Bro's. and at H. H. Ottis' stores. Its price is 25 cents.

* * *

The *Canada Medical and Surgical Journal* has changed its title to the *Montreal Medical Journal*, and with change of name has increased its number of pages and reduced its price to $2.00, all of which bespeaks the prosperity which a journal so ably conducted and so full of wisdom richly deserves.

Society Proceedings.

BUFFALO MEDICAL AND SURGICAL ASSOCIATION.

REPORTED BY W. H. BERGTOLD, M. D., SEC'Y.

Regular meeting, held Tuesday evening, in the Buffalo Library Building, Dr. Van Peyma in the chair. Minutes read and approved. Dr. Edward Clark then read on "The Prevalence of Small Pox and its Managment." He also exhibited several photographs of patients, taken while they were at the Quarantine Hospital. Dr. Clark had taken the photographs himself as he had been unable to get a photographer to do the work at a reasonable price. Discussion. Dr. Samo thought we ought to vaccinate and revaccinate until it would no longer take. He could then, he believed, feel reasonably safe. Dr. Bartlett makes it his routine practice when vaccinating to draw as little blood as possible. The humanized virus, in his estimation, if pure, is the best, while the bovine virus tends to become weakened by repeated transmissions. Dr. Bartlett has also noticed in his practice that the development of vaccinia is now different from what it was years ago. In the pustular stage of variola he bathes the surfaces with a bichloride solution to absorb the secondary flow. Dr. Grosvenor uses a scarifier to vaccinate with. He has lately been in doubt whether some of his vaccinations were successful. The vesicles and pastules take on a strawberry-like appearance. Dr. Callahan called attention to the fact that emigrants' baggage could now be brought here directly from Europe without being fumigated. He

suggested that all emigrants who stop in Buffalo with the intention of remaining should have their baggage subjected to a rigid fumigation. Dr. Callahan favored bovine virus. Dr. Wyckoff was of the opinion that all virus is the same, and it makes no difference whether we use humanized or bovine, so long as we are certain that the subject from whom the first is obtained is healthy. When we use the scab or lymph obtained from a successful vaccination we are certain that the product is genuine and not a spurious article coated on ivory points, or quills, and sold for purely mercenary objects. We should always have a sore if the virus is good and well inserted. Dr. Pryor believes that the sale and propagation of virus should be under state control. This is so in England and he thinks their virus is much superior to ours. Dr. Pryor exhibited some virus contained in fine glass tubes, which he had recently brought from England with him, and which, it was claimed, would last 10 years without deterioration. He had already used some of the same with marked success. Dr. Granger agreed with Dr. Pryor, and thought that the sale of virus at the present and existing price should be discouraged, for it could not do otherwise than tend to deteriorate the quality of the same. Dr. Coakley was of the opinion that bad results might follow the use of humanized virus but never from bovine. If the scarifications do not run through an approximately typical course he believes that it is not successful. When in the army he scarified with a dull knife and used a paste made from the scab. Care must be experienced not to draw too much blood. Dr. Hartwig formerly scarified in six spots. From experiments made in Germany it seems that at least five spots are necessary for absolute protection. He often wondered whether there ever was a disease "cow pox;" might it not have been in the beginning a case of small pox given to the cow? Through his reading he had been led to believe that this was Jenner's idea. Dr. Hartwig did not believe it was necessary or right to remove all small pox cases at once to the Quarantine Hospital. Dr. Clark agreed with Dr. Callahan that the New York authorities were not careful enough in their inspecton of emigrants' baggage, and thought that the suggestion of local compulsory fumigation was a good one. He believed that the present endemic had its origin in contagious material brought here by a Pole who came directly from an infected district in Europe.

The case of Jackson in its origin was more obscure. A year ago a solitary case of variola was reported on Forrest Ave.; Jackson had been doing some whitewashing on Forrest Ave. shortly before he was taken sick and Dr. Clark thinks that he may have worked in the house when the case existed a year ago. Dr. Clark agreed with Dr. Pryor in thinking that the propagation of virus ought to be under state control, and also with Dr. Hartwig that at each vaccination a number of scarifications ought to be made. The strawberry form following some scarifications is a spurious result in Dr. Clark's estimation.

Essayists for October meeting were announced as Dr. M. Hartwig, subject, "Chronic Pneumonia" and Dr. John Pryor, subject, "Results of Treatment by the Pneumatic Cabinet."

Adjourned at 10.30 P. M.

Translations.

THE ILLNESS OF EMPEROR FREDERICK III.

From Official Reports by Profs. Bardeleben, Von Bergmann, Dr. Bramann, Profs. Gerhardt, Kussmaul, Drs. Landgraf, Moritz, Schmidt, Profs. Schrœtter, Tobold and Waldeyer.

Especially Translated for "The Medical Press" from the "Deutche Med. Wochenschrift."

(CONTINUED FROM PAGE 389.)

The next day Dr. Landgraf heard that Mackenzie had penciled the larynx with a solution of chloride of iron, and that His Royal Highness had a pain after the penciling which subsided on taking small pieces of ice. Mackenzie found that the tumor had become smaller through the penciling. On the 24th of June, Dr. Landgraf hinted at the importance of frequently examining the lymphatic glands. He then learned that Mackenzie had the intention to remove, soon, another piece of the tumor for microscopical examination. This operation Dr. Mackenzie performed on the 28th of June in the presence of Dr. Wegner, without giving Dr. Landgraf an invitation to be present. Following this procedure on the 1st of July Dr. Landgraf saw: The tumor was removed; there existed considerable redness and swelling; the swelling on the posterior wall was more plainly seen. Its surface

had a yellowish-gray appearance. The swelling was nearly in the center, somewhat more developed toward the left. Mackenzie only corroborated the first part of Dr. Landgraf's statement, and he finally came to have great doubts concerning the accuracy of Mackenzie's examination, and he did not hesitate to express his opinion. Because of this fact he wrote to Mackenzie asking him if he had not seen the swelling on the posterior wall, and what significance he placed thereon. This request Dr. Landgraf repeated on the 2nd of July. A written reply was declined; while a verbal explanation at the next opportunity was promised. On the 4th of July Virchow's opinion arrived with an accompanying hopeful letter. On the 8th, Dr. Landgraf ascertained that Mackenzie asserted that the posterior wall was healthy. After Dr. Landgraf, on the 29th, at Norris Castle, had pointed out to Dr. Wolfenden where he saw the swelling in question, Mackenzie admitted the existence of the same on the 31st.

July 22nd Dr. Landgraf, after a pause of three weeks, found on renewed examination the general redness and swelling somewhat diminished, especially on the false chords. The right vocal chord was still quite red, but less swollen. The left vocal chord showed on its posterior two-thirds a wide saddle-shaped swelling. The posterior laryngeal wall was also swollen and without ulceration.

In the meantime the tumor had again grown in the same locality where it had been on June 28th. July 3rd Mackenzie admitted this fact. On the 29th he again examined the appearance, which was about the same as on the 22nd. The movements of the vocal chords seemed better. His Royal Highness spoke on this day with clearness. July 31st another examination was made by Mackenzie, after which a long conference between him and Dr. Wegner took place. He reminded Mackenzie that it depended upon him to set the time when he could do no more, that the extremes might necessarily be resorted to. Mackenzie admitted that he saw a band extending from the left vocal chord to the left laryngeal cartilage, previously alluded to by Landgraf on July 1st. Explained how through these possibilities the course of the disease might be unfavorably influenced:

First.— The least anticipated possibility would be the transformation of the new growth into a malignant form.

Second.— It might be a multiple papilloma, which might also grow in other parts of the larynx.

Third.— There might be a transformation into chronic laryngitis, whereby the deeper structures of the larynx might be attacked.

On the 4th of August Dr. Landgraf heard that His Royal Highness had suffered from pain on swallowing ever since March, and only had been free for a few days while at Norwood. Recently the pain had actually increased. It was also associated with an effort at respiration. He did not fail to explain the reasons which warranted a more earnest study of the dysphagia. He accented the improbability that an ordinary angina produced from taking cold had augmented the original difficulty; the explanation given by Mackenzie. It was not possible for him to join in the hope that a change of climate from the Isle of Wight to Scotland would mitigate the suffering.

Somewhat later, after Mackenzie had used the galvano-cautery, Dr. Landgraf gave the following report, August 7th : The tumor had enlarged. It extended downwards more than formerly. Its surface appeared uneven and bunchy. Its center demonstrated a spot of a blackish discoloration.

The swelling on the posterior wall of the larynx was unchanged. A ridge extended toward this swelling from the lower circumference of the tumor. The left vocal chord scarcely moved. To day, the right vocal chord upon which the injured defect was formerly observed was distinctly visible, lay in close approximation with the growth and appeared less red and swollen. Dr. Landgraf maintained that the total immobility of the left chord was due to structural changes which were extending deeper. Mackenzie on this occasion acknowledged the impaired condition of the left chord. Dr. Landgraf in the afternoon of August 7th, declared to Dr. Wegner that he considered it of the utmost importance to again cause a consultation with the Berlin physicians, as intended, now that Mackenzie's uninfluenced treatment of eight weeks duration, the time claimed by him to wholly cure His Royal Highness, had expired, apparently not only without alleviating the suffering, but on the contrary the condition becoming worse.

Likewise, Dr. Landgraf called attention to the danger of still further delaying the operation. He emphatically expressed the belief

that perhaps it was already too late to remove the tumor, necessitating the extirpation of one half of the larynx. Dr. Wegner agreed to the proposal of another consultation. However it never took place.

It is said, that Mackenzie admitted that the difficulty had not improved, yet all cases of cancer which he had seen presented a different appearance. Had it been cancer suppuration ere now would have occured. Earlier, he had not observed carefully the immobility of the left vocal cord. Probably it might have been worse. This acknowledgement of the brusque manner of his examination, was not surprising to Dr. Landgraf. Prior to this he had his doubts of the thoroughness of Mackenzie's examinarion, especially as he had been told he himself required too much time in the employment of the laryngoscope.

August 9th, Drs, Wegner and Landgraf went to Edinburgh, later to Abderdeen, during which His Royal Highness was found at Bræmar in charge of Dr. Hovell. August 23rd, Drs. Wegner and Landgraf were ordered back, and while here, the latter made his last examination. The right vocal chord was found less red than before. The left moved neither in breathing nor in the production of sound. It seemed to occupy a position midway between respiration and phonation. Numerous pointed excrescenes appeared to cover the surface of the swelling, they were small and reached nearly the middle line of the glottis. On the left side they were quite prominent, and obstructed the view to the deeper parts, so that little could be seen of the circumference on the posterior wall. The royal patient complained of a continual pain on the left side in the upper part of his throat.

Dr. Landgraf was obliged to state, on his return from Bræmar, that in his opinion the process of the disease was gradually becoming worse. The importance of what had been discovered caused a discussion. He was compelled to consider the excrescences as a new growth. He based his belief that the swelling had grown, upon the fact that a larger portion could be seen extending into the glottis, and besides, scars due to cauterization were not visible. Thereupon, he made the proposition, that if an examination of another extipated piece was deemed necessary, that it should be done soon, as it could be easily

snipped off, owing to the large size of the tumor. He again repeated this proposition on the 29th of August.

Those German political newspapers which gloried in their reliable information from their close relation with Mackenzie, as well as he himself, announced a gradual improvement in the royal patient while in England and Scotland. The British *Medical Journal*, behaving in a like manner, quoted Mackenzie on several occasions as the authority for its reports. An announcement, which could not, in public, be considered otherwise than a rumor of convalescence, was also made by the *Reichsanzeiger*, prepared by the physicians in charge, while at Vlissingen. "The condition of His Royal and Imperial Highness has of late progressed favorably, and his general condition is excellent. Since the last cauterization in July, no new growth, except the swelling under consideration, occurred. A return of the same is therefore not improbable. It is true that convalescence will be retarded, yet in itself it does not appear suspicious. The important prophylactic remedies to be carried out in the future should be the best care of the voice and the avoidance of cold and damp air." Dr. Wegner added the sentence, "The voice is still hoarse," in his translation of the original English bulletin composed by Mackenzie. Without this remark, at the time, one would have been fully convinced of a complete convalescence.

You may remember the simultaneous concurrence of Mackenzie's promotion to the rank of baronet, and the announcement of the certain restoration of the royal patient. It is conceivable why the entire German nation was ready to express their admiration and honor for the English doctor. It is conceivable, too, why the press, which recognized Mackenzie as the only physician that was right, predicative and successful, should lavish expressed indignation and censure upon the German physicians called in attendance during May.

Finally, with great rejoicing, the restored Crown Prince was expected in Berlin. Festive preparations were made everywhere to welcome him. Then came the first revelation. His Majesty, the aged father, awaited him in vain. One justly asked, "Why did not the physicians receive an opportunity to examine the appearance during the summer and assure themselves of their mistake?" However, they were set at ease because the Crown Prince was seen at Frankfurt

in full vigor and health and many of the "best informed newspapers" gave consoling reports. They also heralded the newly arisen anxieties. Rumors of the continued hoarseness at Toblach, of a choking fit while there, and of the sudden peremptory departure for Venice, they spread abroad.

Apparently, at Bäveno, all was well again. This was especially true because the press regarded the extensive traveling and sojourn in a high bracing atmosphere as the best evidence of how badly the German physicians were mistaken in their fears. Those thus condoled were not a little surprised to learn that Mackenzie was suddenly called from England to San Remo. He now declared the disease malignant and immediately requested the presence of other physicians. Naturally, His Majesty, the Emperor and and whole royal family where greatly agitated, so much so that His Majesty demanded positive information concerning the health of his son and also positive knowledge regarding the heir to the throne. With this object in view, Prince William and Dr. Schmidt as confidential physician, of Frankfurt on the Main, who was recommended to the Emperor by the imperial physicians, were commanded to make haste to San Remo. There was no use of sending Profs. Gerhart and Von Bergmann for Mackenzie would have considered their views of the case as prejudiced. For like reason, it is said, Prof. B. Fraenkel, the appointed laryngologist of the state, was withdrawn, as Mackenzie preferred Dr. Krause, a recently installed private-docent at the University of Berlin. The Emperor desired as his special exponent, a frank and uninfluenced individual.

The proceedings of the consultations and the results of the examinations were described by Prof. Schrotter, of Vienna, and Dr. M. Schmidt, of Frankfurth on the Maine. The two English physicians Drs. Mackenzie and Howell, Dr. Shrader the physician of the Crown Prince, Prof. Schrotter, of Vienna, Drs. M. Schmidt and Krause, participated in the consultation which occured from November 9th to 11th.

Following the examination, after Prof. Schrotter had briefly expressed his opinion, it at once became evident that there existed a great difference of opinion, namely, Dr. Krause emphazed the possibility that the malady was not a new growth, but some other affliction.

Prof. Schrotter could not find any foundation for this belief. He therefore desired to make a separate record, with the explanation that he could under no circumstances alter his views. He based his report wholly upon the view that there existed an œdema due to an enchondritis produced by the development of a malignant new growth, a carcinoma. It is true that the diagnosis, at the time, was difficult, on account of the œdema.

[TO BE CONTINUED.]

Correspondence.

LETTER FROM PARIS.

PARIS, Sept. 1, 1888.

My Dear Doctor.— The work done at the Bicetre requires separate mention, as it covers so much ground. It is divided into five different services.

First is that of Dr. Bourneville, who has charge of the idiot boys, A visit to his department is most interesting besides being a valuable study.

The children vary in age from five to eighteen years. They have large fine wards and ample grounds. Bourneville's great aim is their education and this he pushes with an energy and vigor which bring about astonishing results.

Besides giving them as much drilling in the "three R's" as they are able to stand, he has established a system of manual training. The boys are carefully selected and put at work some in the garden, where they are taught the names of the ordinary flowers and vegetables, and taught how to care for them. Others work in either the joiners', blacksmith, shoemakers', tailors', basketmakers' or chair-caning shops. Last year 161 pupils out of the total 332 idiots in the hospital worked in these shops and the value of their work amounted to 18,107.90 francs or about $3.815. Some of them learn to do very good work and enjoy it. Others find it irksome, and it is difficult to teach them anything. But they are taught all they can learn and by the time they are 18 years old, many of them, who, without the painstaking supervision of Dr. Bourneville, would never have been

able to earn a penny, leave the Bicetre fitted to take positions, humble ones to be sure, in one of these trades.

Among these idiots are 23 who are epileptics, i. e., 7.44 per cent.; quite a number of them are hysterical, two of them have athetosis.

Another interesting department is under the charge of Dr. Ch. Fere. He has 152 epileptics in his wards. Of these 82 are insane.

At present Dr. Fere is engaged in studying the phenomena occuring after an attack. He has the pulse tracings of a large number of patients, taken 48 hours after an attack. He then gives them a hypodermic injection of pilocarpine and observes its effects, which are recorded. Note is taken of the time elapsing before perspiration commences, the amount of salivary secretion and the effect on the pulse.

Whenever one of these patients has an attack he is immediately brought to the office and when he has recovered himself, the effect of philocarpine is again tried. In many of the cases experimented upon I could see no physiological effect produced when, under ordinary circumstances, the same patients had shown marked effects from the same dose. Fere hopes to be able to find some new truths in the causation of the attacks. As his results have not yet been published it is too early to speculate upon them.

In the way of treatment of special cases I have seen two things which to me were entirely new.

All patients (epileptics) who are hemiplegic are treated by the paquelin cautery, applied once a week to the shaved scalp on the side opposite the paralysed limbs, and over the motor region. This treatment is now being systematically carried out with 22 patients. The results — well they have been such as to warrant a continuance of the treatment. In a few cases, Dr. Fere says, he has been satisfied that the patients were cured of their epileptic attack, for they had none in over a year. One case especially interested me. He had something like 800 attacks last year. After treatment for three months the attacks ceased, and now he has had none in seven months. This patient is still at the hospital and under observation.

Another procedure is the wearing of a bonnet loaded with shot, and weighing about four pounds. This is made so that when worn by a patient the pressure about the head is equal on all sides.

Patients whose attacks are preceded by headaches or by dizziness, are directed to wear the bonnet. I enquired of the patients who wore it and they are confident that many attacks are warded off in this way.

As to-day hypnotism is being tried in so many diseases I think that even negative evidence should be handed in. Thus far this has proved of no value in the treatment of epilepsy. In the general care of all epileptics hydrotherapy — douches — play an important part.

Dr. Dejerine has perhaps the most interesting service, for he has the greatest variety of diseases of the nervous system ever collected together. Prof. Brown-Sequard told me he did not believe there was such another in the world.

As the Bicetre is the hospital for infirm men of Paris, all manner of cases are sent here. What better place to study locomotor ataxia than here where there are at present 130 cases of that disease. Every stage is represented, every variety. Here you can see cases having the different crises — urethral, laryngeal and gastric. The joint disease of Charcot, the chapping foot, the perforating ulcer. Then there are the mixed cases— those showing some symptoms of multiple sclerosis — others combined with atrophy. This latter, by the way, is not so rare as claimed by many authors. As to the interesting question of syphilis, I find that 60 per cent. have a syphilitic history. But this is much smaller than the writers of 20 years ago taught.

Other cases of diseases of the cord are not so numerous but they are all found here, that is the chronic diseases. Dr. Dejerine has 300 beds and they are all filled with patients suffering from some of the nervous diseases.

The physicians in charge at this institution are most courteous and give medical men absolute freedom in the wards. Every opportunity is given us to study any case or group of cases we choose.

In the treatment of the insane here, I find more restraint and seclusion than I ever saw at home. The physicians claim it is because they have a larger proportion of violent patients than we do in the United States. But certain it is that at St. Anne's, The Selpetriere and Bicetre, the number of persons in restraint struck one who was accustomed to the almost no restraint system of Dr. Andrews, as unusually large.

There was one thing that was a novel sight and that is the treatment of the more agitated patients by the prolonged bath. This I saw at St. Anne's. In one room were six bath-tubs covered with strong canvas which was bound to the sides of the tubs. At one end is an opening which the patient's head passes through. The patients remain in the baths, which are warm, from two to six hours a day. The physician told me that this had a most soothing effect on the patients. That many of them slept without chloral, when under this treatment. Attendants remain in the room to prevent accidents. The patients seemed to enjoy it. This bath is repeated daily either until the period of disturbances is over, or the treatment found ineffectual, as it is in some cases.

At some future time I hope to send you a letter concerning the work of Prof. Bernheim, at Nancy, whose experiments in hypnotism I studied with him. Truly Yours,

J. W. Putnam.

Book Reviews.

The Disorders of Menstruation. By E. W. Jenks, M. D. George S. Davis, publisher, Detroit, Mich. Price 25 cents.

This little book is No. 2 of the "Physician's Leisure Library." For a book of that kind, the plan upon which it is constructed is a good one, viz.: to collect in one small volume the disorders of a function and refer them each to its cause or causes. It would be of great benefit to the young physician if many such books were published, for it is truly a clinical teacher leading from symptom to cause and then giving the treatment.

The pathogeneses of the various disorders of menstruation, as given by Dr. Jenks, are rational. The following remarks on the pathogenesis of dysmenorrhœa are particularly good: "The author does not agree with some of his contemporaries, who charge intellectual work with being the cause of most of the disorders of the generative organs of young women, in particular of which disorders dysmenorrhœa is the most frequent accompaniment. * * * It is not the brain-work *per se*, but the lack of proper and sufficient physical

exercise, producing thereby a one-sided development, which proves injurious," etc.

The treatment recommended for the various conditions referred to is, as a rule, good. His mode of tamponing, however, seems to the writer to have no advantage over that recommended by Thomas, and has the disadvantage of leaving a number of strings hanging from the mouth of the vagina with nothing to indicate which string belongs to which piece of cotton.

This short review should not be closed without reference to one glaring defect, which is the more surprising on account of the author's position as a teacher. The defect refered to is his use — or rather abuse — of the English language. Some offence against the rules of rhetoric or grammar is to be found on nearly every page. I will make but two citations in addition to the quotation made above. Each displays great ignorance, on the part of the author, of the proper way in which to construct a sentence. The citations are: "In those who have borne children and the uterus is large from connective tissue growth," etc., p. 15, and "Another mercurial of great value is to take from one to three grains of calomel," etc., p. 16.

DEL. R.

BOOKS RECEIVED.

From E. B. Treat, New York:
Excessive Venery and Masturbation: J. A. HOWE.
From Geo. S. Davis, Detroit:
Abdominal Surgery: H. C. WYMAN.
Diseases of the Liver: DUJARDIN BEAUMETZ.
From D. Appleton & Co., New York, through Otto Ulbrich, Buffalo:
Human Physiology: AUSTIN FLINT.
From F. A. Davis, Philadelphia:
The Physician's Interpreter in Four Languages.

MODE OF USING SACCHARIN.—The *Pharmaceutische Rundschau* suggests that to sweeten beverages, liquid medicines, starch-syrup, confectionery, cakes, etc., it is advisable not to add saccharine direct, in the form of powder, because of its very slow solubility, but to use it in the form of a concentrated solution of known strength.

Such a solution may be made as follows:—10 gramme of saccharin

and 5 gramme bicarbonate of sodium are added to 1 liter of distilled water, or water that has been boiled or filtered (the ordinary spring water, on account of the presence of lime, causes a precipitate with the sodium bicarbonate of the carbonate of calcium), this is heated and constantly stirred until a perfect solution is effected. Of this solution

10	CC are equal to . . .		30.0	gramme	cane	sugar.
1	tablespoonful is equal to		40.0	"	"	"
1	teaspoonful is	" "	10.0	"	"	"
8	drops are	" "	1.0	"	"	"
1	drop is	" "	0.12	"	"	"

It is desirable to keep on hand a mixture of saccharine two parts and sodium bicarbonate one part, this mixture being much more soluble than sacchrine alone, of which only 3 gramme are dissolved by one litre of water at the ordinary temperature.

To sweeten strong alcoholic liquids it is well to use a solution of saccharin in alcohol (10 gramme to the litre). Glycerine will also readily dissolve saccharin, especially when slightly warmed.

Solution of saccharin may be kept for any length of time without spoiling.

NOTICE.

In order to made THE MEDICAL PRESS of greater value to our readers, we offer to print, for not more than two insertions, three-line notices of wants, exchanges, practices for sale, etc., *free of charge.* Such notices should be received by the fifteenth of each month.

WANTS, EXCHANGES, &c.

Practice for Sale.— A good practice in a town of 2,000 inhabitants. Poor health the reason for giving it up. Address, Dr. M. U. Campbell, Wolcott, N. Y.

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The Medical Press
of Western New York.

VOL. III. NOVEMBER, 1888. NO. 11.

SOME POINTS IN THE DIAGNOSIS OF CEREBRAL DISEASE.

ABSTRACT OF A LECTURE BY
VICTOR HORSLEY, M. B., F. R. S., F. R. C. S.,
Delivered at the Medical Department of the University of Buffalo, October 9, 1888.

After a suitable introduction by Dr. Park, Prof. Horsley spoke about as follows: It is a very difficult thing, as you may imagine, for me to say anything in a connected manner, at this time, that would be of special interest to you. I wish to call your attention, nevertheless, to a subject which has personally interested me to an extreme degree, and which is, moreover, one of enormous magnitude — so enormous, in fact, that I must confine myself in these remarks to a very limited part of it. It has seemed to me that I could, perhaps, best speak to you on that part of it referring to the diagnosis of diseases of the brain. The surgery of the brain, it seems to me, has in it no mystery whatever; it is with one or two trifling exceptions based upon the same general principles that are applied to other parts of the body, but the diagnosis of diseases of the brain is, of course, altogether another matter, and one in which much special knowledge and skill are required.

For our purpose, to-day, let us divide diseases of the brain into two great classes, and in each of these make a subdivision. First, we may divide them into *Focal* and *General*, and secondly, we may classify them as *Irritative* or *Destructive*. These divisions are in a certain sense arbitrary, and yet in many other respects are clearly defined. By an irritative lesion we mean one in which there is over-action in some particular part of the brain, and in which the lesion excites the function of that particular part in which it is situated; on

the other hand, a destructive lesion implies that the function of the part affected is totally abolished. The former assume the greater importance for us, because they admit of relief; whereas, after destruction of the brain, or any one or more of its component parts, there can be no help. The irritative lesions are also of great special inportance, an importance which continually increases, because heretofore men may have looked rather for evidences of destruction as the signal symptoms of brain disease, whereas now we must learn to recognize the irritative features as premonitory of possible impending destruction. Heretofore we have looked, perhaps, for paralysis as the essential indication of some focal disease which we might attack, but if we wait until the diseased part loses its function, we have waited altogether too long. In one most striking case in my experience, there was no evidence of paralysis, whatever, although there was in the brain an infiltrating sarcoma four inches in diameter. Had this case been treated when irritative lesions first showed themselves, there would have been a chance for operation and probably great benefit.

Consideration of irritative lesions leads us at once to the mapping out of definite areas in the brain. We have been taught by experimental study and by clinical and pathological experience that particular portions of the brain are concerned with particular movements or with exercise of particular senses. Take, for instance, the occipital lobes, which are now known to be in a large degree centers for vision. Dr. Ferrier has claimed that in addition to the occipital lobe being concerned in sight the anterior gyrus also participates in the faculty of vision, although some observers are by no means inclined to agree with him in this latter respect. Other special senses have also been located by Ferrier and Schafer, but these observers are more or less at variance with one another, not only as regards the centers for taste and smell but also the center for hearing. More light is needed before we can see with absolute accuracy regarding these points. Tumors in the hippocampal convolution produce anæsthesia of the opposite side of the body, but that the hippocampus major has nothing to do with the sense of touch proper, has been demonstrated both by Prof. Schafer and myself.

With regard to the frontal lobes we are only, at present, in position to say that disturbances here result in emotional affections; beyond

this we can hardly speak with certainty. The celebrated crowbar case, the specimen from which is now in the Harvard Museum, abundantly illustrates this fact. The iron bar was forced through the anterior fossa of the skull, and during the man's remaining years he suffered from various mental and emotional disturbances, but not from any motor affection. By the researches of Hitzig and Ferrier, certain areas on the surface of the cortex have been marked out, each of which apparently presides over motions of different parts of the body; but we are now in a position to require a more definite subdivision of these areas than these gentlemen have given us. It is not enough to know that a certain portion of the cortex presides over motions of the arm. We wish to know the centers for motion of the thumb, and fingers, the hand, the forearm, and so on. Simply reminding you that these motor centers are clustered around the fissure of Rolando and along it, you will remember that low down we have the center for motions of the face and neck, which we now subdivide into those for movements of the eyelids, the vocal cords and other parts concerned in speech; and that as we go higher we have the center for movements of the thumb, and then higher yet those for motions of the wrist, elbow and shoulder, and still further up, for movements of various parts of the lower extremities and finally for movements of the trunk. There is no abrupt line of division between these small areas, each gradually merges into adjacent parts of the cortex. Excitation of the central portion of one of these areas determines motion in the part which it alone supplies, but as we pass toward the center for another area, we find a region which provokes motion in those parts supplied by both. The first joint of the lower limb to move after excitation of the lower portion of the leg center is the hip, then as we place the exciting electrode further back and higher, we elicit motions of the great toe and then of the remaining toes.

These centers have an enormous factoral importance, because by a study of convulsive movements of groups of muscles we determine the location of the irritative lesion which calls them forth. In studying convulsive motions of the upper extremities in a given case, for instance, it is not enough for us to know that the thumb bends first and begins the convulsion, we should know whether the thumb

first flexes or becomes extended, because that is another means of localization. We must know also the definite order in which such signs of disease are given, and this we must learn not by casual examination but by minute study of each case and a careful history of the same. For example, we have an epileptic patient with an irritative cortical lesion and we learn on questioning that the seizures are preceded by a definite aura. We learn that the patient had at some time received a severe blow on one side of the head, that following the injury the right arm was rigid, that the patient complained of considerable pain, that his head was not seriously bruised nor injured and that there was no scalp laceration, nothing perhaps which led to operation at the time. In such a case we may be sure that there is an irritative lesion on the side of the brain opposite to the arm affected. We will find that in this case there are the usual stages in a Jacksonian epileptic fit; first there is an aura, next a stage of tonic convulsions, in which the muscles are in a powerful tetanic spasm, then a short period of rest, then clonic spasms of the muscles, and finally the limb drops as if paralyzed from exhaustion. It is in the epileptic seizures of Jacksonian type that we may expect most brilliant success from surgery.

But in studying such a case, it is not enough to think you have completed a diagnosis simply by observation of the first spasms or by learning that the thumb is flexed at the time. After noting the first spasm, it is necessary to observe what comes next. If the thumb is first affected and then the wrist and elbow successively, the center of irritation is in or over the thumb center. If after the arm becomes affected the next manifestations are in the face, the irritative lesion involves both the arm and head centers, with its most prominent manifestations in that for the arm; if from the arm the convulsive motions spread toward the leg, the center of the irritative focus is in the arm center but extends upward. So in studying the spread of paretic or paralytic phenomena, learn where these first begin and then consider that the lesion begins in the center for the part first affected. If the thumb, for instance, is completely paralyzed then it must be obvious that the lesion cannot occupy the whole of the thumb center.

With regard to motions of the eyelids, Prof. Schafer has not only shown that the occipital lobe has to do with the perception of light,

but also with the movements of the eyeballs connected with the act of seeing. He has shown that the whole of the visual field is represented in each occipital lobe. We knew this clinically, to a certain extent, before. We knew that each hemisphere could in a measure act for both eyes, although the perception of light coming from the eye of the same side is small as compared with that coming from the other. By this means we are prepared with a means of localizing disease in the occipital lobe.

Time does not permit consideration of localization in the cerebellum; it is too wide a field to enter upon, for a very considerable amount of preliminary description would be necessary. Let us pass to the consideration of the determination of disease underneath the cortex of the brain. This is a point of quite as much importance as diagnosis of cortical lesions and greater difficulty. As we trace the fibres from the cortical areas downward, we find that they are gathered together in a funnel-shaped manner, the collection being known as the corona radiata; these pass downward beneath the hemispheres to become the anterior and lateral pyramids; most of them course to the opposite side of the cord and passing downward in its substance terminate in cells. These fibres carry motor impulses from the cortex to the muscles. An important point in diagnosis of epileptic or other convulsive disturbance is to ascertain whether the lesion in the brain is producing all or only a part of the epileptic spasms. You will readily understand how a tumor growing in the white matter of the brain will, as it grows, press upon the nerve tracks from the arm or from the leg or face centers according to its proximity to their paths. By a careful study of the order in which such disturbances appear, we can, from knowing the order of these fibres, say that the tumor began in this or that part of the brain. In the ordinary form of apoplexy when we have a hemorrhage in or near the corpus striatum, from the so-called artery of hemorrhage, the clot as it forms tears through or presses apart these motor tracks. By study of the consequent paralysis as they rapidly appear, we may tell whether the hemorrhage occured in the lower or upper part of this track and by a careful study of the attendant phenomena, we may give a more accurate prognosis than can be attained in any other way. In this apoplectic hemiplegia, as is well known, the part most frequently paralyzed is the arm, the

face is less frequently attacked and the truncal muscles usually escape. It is possible in many of these instances to say that as the clot slowly reabsorbs the power of locomotion will be in part regained; that control of the arm will never be obtained, or only late in the case, that control of the facial muscles will come more slowly, and that speech can be improved, if not entirely regained.

As far as diagnosis of cerebral disease goes, it is perfectly obvious that clinically we only arrive at a conclusion when we sit watching the patient from minute to minute. This is usually out of the question if we are to make all these observations ourselves, therefore it is neccessary to particularly train the nurses or attendants. I would suggest that when a case of this kind is brought to you, you should draw up on paper a perfectly plain but minute series of questions to which the nurse shall be expected to supply careful answers. Among these questions the most prominent will be perhaps, Was the patient unconscious at the beginning of the fit? Did peculiar sensations precede the seizure; if so, exactly what? What was the part of the body first moved; if the thumb, was it flexed or was it extended? If the arm, was it bent at the elbow, or straightened out, or was it held rigid in a condition of semi-flexion? A large number of questions of this kind must be asked and accurately answered so that we can express a well founded opinion as to the exact location of his disease. Hitherto, as I have already intimated, we have been taking the paralysis of epilepsy to be our principal assistant in the matter of diagnosis. We must make our diagnosis from the irritative phenomena, and from definite accounts of the sensations and convulsive motions of various parts of the body. A definite clinical picture of this kind permits much more accurate diagnosis than a study of paralytic phenomena, and moreover permits it in time to give the patient the benefit of surgery. These questions cannot all be answered in the excitement of a single seizure; it is necessary to study a repetition or a series of attacks before all the knowledge necessary can be obtained. It may possibly seem to you that I insist upon too many minutiæ, but I have seen many cases where neglect to observe motions of a definite part of the body has led to considerable error; you cannot, therefore, be too minute in your examination of the patient.

Prof. Horsley's lecture was illustrated with a number of diagrams and blackboard sketches, made in a characteristic and happy manner, which we cannot here reproduce. Certain parts of his lecture, therefore, which could not be illustrated, have been omitted.

REMARKS ON PROSTATIC HYPERTROPHY.

BY SMITH BAKER, M. S., M. A., UTICA, N. Y.

[Read before the Oneida County Medical Society, Oct. 8, 1888.]

That shrinking from disagreeable investigations should sometimes interfere with the making of an accurate diagnosis; that educational preconceptions should forbid the undertaking of necessary examinations at all, and that requisite knowledge is not always at hand when needed, constitute the thesis that will be more or less illustrated and discussed in the course of this paper.

For some reason my experience with this class of cases has been so varied, and in many instances so startling, that the impressions which have come from it might be formulated into guide and danger signals not a few. And in the first place there comes to mind the possibility of looking upon the hyphertrophied prostate as a concisive, irremediable affection (often quite true enough) and consequently of resting in the conclusion that but little attention is required here on the part of the sufferer himself—quite in opposition to many facts.

For instance: A man of 70 years, hale, hearty and ruddy, after experiencing the micturitinal difficulties usual to hypertrophied prostate, was relieved by a gum catheter, and instructed to use it for himself, whenever necessary. After four months of using the same catheter and carrying it in his pocket, he came to me and exhibited a severe condition of chronic cystitis, which required enough time to remedy to at anyrate allow of this instructive reflection: Never place a catheter in the hands of a layman without accompanying it with full instructions as to use, and necessary means for proper disinfection.

This case takes my memory back to the first one of the kind that I ever professionally met with. At 80 years a rapidly enfeebling but intelligent man, after rather slight but still suggestive interferences with urination, had been given an old-fashioned gum instrument with a stylet,

and without any illustrative instruction whatever, had been simply told to use it if ever needed. In due time I was routed out at midnight, to find the old gentleman bent double over a chair, with blood drizzling from the uretheal meatus, and he still resolutely at work, endeavoring, to, as he expressed it, "get a hole through, if it takes all night." It took myself, the practitioner who had furnished the catheter, and as eminent a consultant as we could readily obtain; it took chloroform; it took wearying, almost hopeless effort; it took all the catheters, including the vertebrated one of Squire, that we collectively had (this was before the advent of the soft "velvet-eyed" instrument) to at last finish what the patient had so ignorantly but blamelessly begun; more than this it took his life finally because of the septic urethitis supervening. The lesson this case brought to my then most questioning mind was this: See to things yourself, and don't ever suppose the laity to be professional experts.

But it is not the layman with an improper instrument who does all the mischief by any means. A well-to-do man of 55, had been unusually healthy up to the time of commencing urinary difficulties, and prospectively was to live a score of years in comparative comfort. As soon as his trouble had been noticed, he had applied to his family physician for relief, who, without physical examination, decided that it was some "bladder disease," and proceeded to dose him with buchu and saltpetre *ad nauseam*. Not recovering from this, the old gentleman then consulted a very incompetent irregular, who made matters worse, and necessitated a return to the family doctor again for relief—this time instrumental. Upon the first, second and third attempts there was no difficulty experienced, but the fourth trial, at midnight, proved a failure, and I was summoned to assist. When the bedside was reached, what a scene presented itself! The old sufferer in agonizing prayer for relief, the household in pitying tears, and half the neighborhood seemingly close at hand, all lending their picturesque effect; while the doctor was sitting by the patient's side in a half-dozing, entirely incompetent manner, rythmatically churning an abominable stylet gum catheter, and keeping up needed courage by frequent assurances that relief was just at hand. A No. 11 (Am.) soft instrument entered the bladder easily enough, but what an afterment of suffering, danger, and fatality followed from the septic urethitis and septicæmia which triumphantly supervened. The

lesson was an old but often-forgotten or unheeded one: Professional incompetence and quackery fall not much short of being criminal.

Nor was this lesson rendered any the less vivid or important by another case that came under observation at about the same time. A tough, hard-working farmer had always suffered more or less from rheumatic pains, but nevertheless had otherwise been well enough to endure exposure and labor with the strongest. At 55 the family physician was called upon repeatedly to relieve by using a catheter; who always assumed that prostatic hypertrophy was the only affection. Not improving, the patient went west, where he supposably recovered. But upon returning to his home and his ordinary avocations, the symptoms returned and within a couple of years, drove him to consult quite a number of physicians, of all "schools," grades, and degrees of worthiness, who each in turn diagnosed prostatic hypertrophy, and treated him accordingly. Finally he was given up to die. At this point I was summoned, and after listening to an argument against the probability of stone, derived from all that had gone before, I yet had no difficulty whatever in demonstrating the presence of one, which proved to weigh 1½ ozs., when removed. For three years he had been suffering, and for that length of time he had not received the examination (according to all the evidence) absolutely requisite for an accurate diagnosis. At anyrate no calculus had been discovered, a fact which, as a failure simply, might have been excusable. For, after a few months, and a second examination, upon being again operated on, and death following, it was found that the bladder was badly chambered, and so had afforded exquisite hiding places for a number of stones. But this, of course, could not avail when no search had been made for them. Meanwhile the prostate gland was actually so insignificantly enlarged, that many another, larger still, had been known to give rise to no symptoms whatever.

Need we say that professional presumption is not clinical certainty. Yet, while writing this paper, there come to my ears two other instances of people who are being "doctored" on something such a presumptive scheme. And this leads up to the necessity of saying a word about the value of subjective evidence in any case of prostate hypertrophy. I once heard a lecturer insist upon the point that in this affection pain during the difficult micturition contradistinguished the case from one of stone, where the pain was said to always follow the emptying of the bladder,

and more than once have I encountered a professional belief in this rule. But I respectfully submit that the subjective evidence depends entirely upon the susceptibility or degree of irritability or prostatic inflammation of the bladder present, and that reliance upon this alone is *never* justified by actual experience. As one instance, a man of 68 years, came to me with a difficult, painful micturitive history of three months, but having no after-distress whatever. And yet there was but a very slight prostatic enlargement, if any at all, nor could a calculus be found. But there was a growing cachexia observable, and in time, frequent hemorrhages, with localized tenderness of the cystic neck, revealed the probability of cancer—something at anyrate which led on to death within a month. Prior to the hemorrhage, the bladder was very sensitive and rebellious and painful, and yet no pus, calculi, nor enlargement were to be found.

Incident to the recital of these last two cases, appears the desirability of perfecting the supra-pubic operation for lithotomy, so that it can be relied upon in place of the ordinary operations, whenever a sacculated bladder is suspected. For there is no doubt that the comparatively easy digital exploration, which the supra-pubic incision affords, is a matter of weighty consideration in cases of this nature.

Contrasted with the picture so darkly presented thus far, let us turn to one of a series where the tints are brighter, and the view is altogether more pleasing. A man, at 72, not very well, more or less "rheumatic" for a long time, subject to exposure and toil, and thought to be suffering from "kidney disease." Much to his astonishment, I put him on the table, and, against earnest protestations, explored the rectum uretha and bladder, until I became certain that prostatic hypertrophy was the real cause of his bladder and urinary troubles. Then I not only introduced the catheter myself, but insisted upon his performing the novel operation in my presence; after which he was properly instructed to disinfect it, and also to bring it monthly for inspection, and renewal if necessary. After three months of this management, together with slight vesical attentions on my part, he was discharged with nearly a complete natural ability to urinate, and feeling very well generally. Suffering as such had ceased, and this continues to be the result to this day—some two years.

Now this appears undoubtedly as simple and trite as the Cadmean alphabet; but simple and trite as it may be it is the professional alphabet

that spells out comfort, safety, success, and reputation with surprising frequency and certainty, and it is very unwise, indeed, for anyone to attempt anything less than this in any case. Frequently the patient himself will not carry out the details of the plan, perhaps because of its very simplicity. But this is a misfortune, rather than a fault of the practitioner, and in no way militates against the general usefulness of the measures themselves.

Frequently, of course, there have to be supplemental measures, determined by the vesical or other complications, which should not be neglected. But these are aside from the purpose of this paper.

In regard to the special plans of treatment with ergotine, electrolysis, etc., designed to reduce the enlarged gland, I have not as yet succeeded with them to an extent which justifies attaching anything more than an experimental importance at best. That the time will come when some of them will be found ordinarly successful I have no doubt. Meanwhile let us all be sure that our diagnosis is correct, and in case of prostatic hypertrophy, let us all be equally sure that we properly attend to the urinary function and its concomitant conditions.

RESULTS OF TREATMENT BY THE PNEUMATIC CABINET.*

BY JOHN H. PRYOR, M. D.

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When asked to report the results of treatment by the "Pneumatic Cabinet," I hesitated because my experience with that instrument had not been sufficiently prolonged or extensive to warrant positive conclusions. Finally it seemed wise to give a brief account of a year's work after stating that long illness and absence from the city made continued operation impossible and a careful study of cases difficult and unsatisfactory. The large proportion of patients treated were suffering from pulmonary tuberculosis in the declining period when no marked improvement could be, for various reasons, expected. Of 28 cases of phthisis which were seen often enough to be included in this report, 16 were far advanced and failing, six had long since passed

* Read before the Buffalo Medical and Surgical Association, Oct. 2, 1888.

the early stages and four only manifested the incipient form. Those suffering from septic fever, tubercular pneumonia and their accompanying conditions of prostration were irregular in attendance and often long intervals elapsed when they were unable to leave home and the employment of any measure which would necessitate undue activity of the lungs or pleuræ was temporarily abandoned. Others who have used the cabinet in a larger number of cases continue the sittings during all stages of the disease, but I question the advisability of enforcing increased exercise upon an organ acutely inflamed. This statement appears to be particularly true of the pleuræ.

Doubtless the results in this variety would have been more definite and beneficial had it been possible to offer relief at home, and the fact that interruptions must occur unless the patient disregards dangerous influences, such as atmospheric changes, constitutes the most serious obstacle to favorable results. In considering the effects of this comparatively new method I have purposely omitted a statistical table. Any statement in that form is apt to mislead if designed to show the curative properties of a remedy for phthisis. Its natural history is so variable and any group of cases shows such manifold and apparent dissimilarities in form, manifestation and course, that claims of improvement or recovery should be cautiously announced. So far, however, I have not seen a case which has not been benefitted by the Cabinet, if properly employed. In a large number the improvement was temporary, not constant nor progressive. Distressing symptoms were alleviated and some complicating conditions controlled, while morbid changes advanced perhaps more slowly with an occasional lull distinctive of the affection.

The cough diminished and was controlled more efficiently than by other methods commonly employed. This I attribute to loosening of the exudative material, free expectoration and sedation of the respiratory tract, but more especially to the spray which bathed the pharynx. From a careful examination of several hundred cases of phthisis it has become apparent that pharyngitis of a follicular type is present almost without exception. Continued observation only strengthens the conclusion that the origin of the persistent and harassing cough will be found in an irritable and inflammatory condition of the throat. This fact is rendered more important and indubitable by a knowledge

of the nervous supply of the lungs and the benefits bestowed by local medication.

This complication which exerts a powerful and detrimental influence upon the constitutional tendency, resists the baneful cough mixture and opiates which frequently cause digestive disturbance, hinders nutrition and prevents the use of rational measures based upon an improvement in general condition. The "Pneumatic Cabinet" has supplied the best means for topical treatment of the upper air passages and enabled us to avoid dangerous and often misdirected attempts for the relief of a manifestation no longer obscure. By the use of medicated air in the form of commingled spray or vapor the medicant can be deposited upon the diseased surface.

In those cases where cough comes in the night or is more or less constant the nebulizer or Semple's inhaler was advised in conjunction. Many secured rest or unusual absence of discomfort by inhalations of cocaine or soothing remedies once or twice in the night and experienced little annoyance during the day, after a 10 minutes sitting in the cabinet.

The temperature often remained lower during continued treatment and in a few of the cases this seemed to be the direct result of increased function and antisepsis. The fact that those afflicted with pulmonary tuberculosis show marked fluctuations in temperature curve during periods of inactivity and exacerabtion, dependent upon the state of the lesion and its effects, must be remembered while considering this question. It is when septic fever or an intercurrent inflammation of lung structure change the clinical aspects of phthisis that the play of morbid action becomes unique and inexplicable. These strange features are generally recognized now and the more rational treatment developed by attention to the many pathological conditions, such as high temperature and consequent tissue waste, has increased the duration of life and diminished the hours of suffering.

My experience with the cabinet seems to prove that it will not fill the place of antipyretics save in some cases of chronic or fibroid phthisis where elevated temperature depends upon retained septic material. How much influence the antiseptic spray or vapor exerts upon putrefactive material in cavities or bronchial tubes I cannot accurately state. Nor can I offer any opinion formed from personal

observation as to the depth or extent to which they permeate the pulmonary tissues.

The consensus of opinion appears to be that the pneumatic cabinet furnishes the best means for this purpose, and that air laden with properly prepared medicants enters the lung and is diffused or distributed over a large area of its structure. An enquiry into the mechanical effects of the apparatus lends strength to the belief, and physiological experiments have adduced proof to uphold such claims and make them rational. Now if this be true, the object has to a large extent been attained which physicians have hoped for so long, viz., topical application to diseased pulmonary tissue.

That the temperature is sometimes controlled by antiseptic inhalations has passed beyond doubt, and it seems reasonable to suppose that the fall and lower temperature curve is caused by a cleansing of the putrid surfaces. In several cases night sweats ceased or disappeared for a time. Not in those greatly enfeebled, with extensive loss of breathing power, but rather in the cases where insufficient function was noticeable, and carbon dioxide, accumulated during the night, found its way into the circulation and irritated the sweat glands to unwonted activity.

Brunton has directed attention to the physiological fact that this noxious gas is a powerful excitant of the sweat centers and glands, and explains the action of such drugs as atropia by citing their tendency to stimulate the respiratory centers and thus quicken and augment the failing and imperfect function of respiration. It is probable that proper oxidation and the increased facility in breathing, accomplished by the acid of the cabinet accounts for the effect, which was more noticeable in the early stages of the disease. Without exception, the patients expressed a desire to sit as often as possible, because the breathing was rendered easier and more complete for the rest of the day. Cog-wheel and jerky respiration was usually replaced by deeper and uninterrupted inspiration. A general feeling of new vigor and relief from weariness and languor usually followed the treatment, and the remark "I want to feel well to-day and take long breaths again; it gives me strength and buoyancy," was often heard. My experience is in accord with that of those who noticed increased weight and strength. Several who were unable to take nutritive food or cod liver oil in large quan-

tities found after a time that they were tolerated and assimilated without disturbance.

The danger of causing hemorrhage by exercising the tremendous power of the Cabinet, has been much discussed, but any accident of that character can be obviated by beginning with low pressure and increasing it gradually. In one case where the hemorrhages were frequent, profuse and due to congestion, the rales disappeared and the patient experienced marked relief from heavy and suffocating sensations in the chest. The effect of pneumatic differentiation upon the blood supply and vascular tension would not contraindicate its employment in most cases. Where the hemorrhage occurs to relieve a congestion, no reason appears why the Cabinet should not prove a beneficial agent by equalizing the circulation and removing distension. However, when we remember that fatal hemorrhages usually result from the bursting of dilated vessels or aneurismal enlargements, it is safe to question whether violent exercise of the part may not stretch the parenchyma and strain a weakened vein or artery which has little or no support. I have seldom tried the high pressures which some writers advise. The plan has been to begin with ¼ inch and increase to ½ or ¾ inch, watching the patient to avoid great exertion. Even with ½ inch pressure the act of expiring the air against a strong inflowing current is difficult, when the sufferer is much emaciated and energy is low. The art of fixing a limit and teaching one how to breathe requires patience and perseverance. But there comes a time when respiration is kept up so efficiently that the pressure continues unchanged and the patient may remain in the Cabinet for ten or fifteen minutes without any attention being given to the manometer. So far as the curative properties of this instrument are concerned they have only been manifested in incipient phthisis and cases not far advanced. I regret that my experience with this class has been so slight because the few which received early treatment gave most gratifying results. Of six cases in which the disease had not produced constitutional traces and was limited to a small area, with or without cavities, the improvement was marked, and in three of the six the disease seemed to have been checked, as the local signs indicated a cessation of destructive changes. All of them were advised to seek a more congenial climate for obvious reasons. Three passed from operation, and three have since died from

a recurrence of the disease brought about in two cases by reckless disregard of counsel and hurried in its course by unscientific treatment. Conflicting testimony in regard to suitable climatic conditions for the relief of consumptives encourages one to question the wisdom of sending an invalid far from home unless proper care can be assured at the destination. During the past year four patients who traveled far in search of benefit were only hastened to the grave by physicians who relied upon dry and rarified air as a means of cure and paid no attention to the manifold conditious which called for other measures. The diagnosis of incipient phthisis is often falsely made and consequently clinical reports become unreliable. Pleuritic adhesions located at the apex, which restrict the movements of the lung, cause a collapse of vesicles and reveal diminished action by dullness, broncho-vesicular breathing and other signs of suspected deposit, invite tubercular disease, but it may not be present. For that reason only those cases have been included in which the presence of the disease was demonstrated by bacilli in the sputa and the signs of inflammatory changes around the foci.

Two of the four cases mentioned recovered, and there has been no return of the disease. The others recovered to the extent that symptoms disappeared and the disease showed no tendency to return after repeated examinations. Since that time, however, one went to California, and developed a pneumonia complicated by Bright's disease, which ended in death, and the other is now dying of a slow form of consumption. He stubbornly refused to leave Buffalo, or use the Cabinet again, because of a strong belief that he must go, as his brother had it, "and it is only a question of time anyway."

It is in the way of prevention and checking the early ravages of this disease that the Cabinet has been found most efficacious. That pleurisy, empyæma, localized bronchitis, slowly resolving pneumonia, and similar affections of the lung favor pulmonary tuberculosis or fibroid phthisis is well known. Aside from inherited taint and unhygenic surroundings, indolence of the lung, especially of the superior portion, is becoming recognized more and more as a direct and common cause. Extended operation reveals the fact that those suffering from any form of phthisis breathe superficially and respiration is incomplete. By the use of the Cabinet the vesicles are filled, residual air changed, and the circulation

promoted. The portions of vesicular structure which remain quiescent and afford little opportunity for interchange of gases, are reached in this way and made to perform necessary work. The chest can be expanded and adhesions stretched or torn apart. I have used as high as ¾ and 1 inch pressure with the idea of distending collapsed lung tissue following empyæma, pneumonia and pleurisy with effusion, and always succeeded in increasing the chest measurement and proved the entrance of air into unused territories by hearing the respiratory murmur grow more distinct day by day. There is no method of treatment so certain and rapid in its results when applied to ameliorate these dangerous conditions.

A slight acquaintance with the mode of operation of the Cabinet and the purposes it is intended to fulfill, demonstrates its utility in this group of cases by simple mechanical laws. The most brilliant results were obtained in the treatment of acute and sub-acute bronchitis, whether localized or symmetrical. Of ten cases, seven were sub-acute, and all recovered after two to four sittings, with the use of antiseptic and sedative vapor. Three of the sub-acute form had been receiving medicinal aid for a period ranging from two weeks to one month. The sibilant breathing and moist rales disappear quickly, and the relief is prompt and effective. In chronic bronchitis the improvement is slow and often evanescent. Although my experience has been limited, the only change noted has been a modification of annoying symptoms, unless the disease was accompanied by asthma. Then the paroxysms may occur less frequently, as I have observed in one case. In others the breathing seemed to be less labored, but the paroxysms returned as usual. Those who have tried different methods for the various forms of asthma offer a more encouraging report and it is probable that promising cases will yield more praiseworthy results. No good opportunity has been afforded to test the merits of the Cabinet in bronchiectasis and emphasema, two diseases which are said to be greatly benefited by its use. In the course of time I hope to furnish a more satisfactory and thorough report of extended work in this direction. The object of this rough paper has been to avoid incautious statements while expressing a belief in the efficacy of the Cabinet, which grows stronger with increasing experience. It affords a scientific and rational mode of treatment for many thoracic diseases which resist older and less certain

means, and the results published by Williams, Bowditch, Whitaker, Fox, Westbrook, Houghton and many others stimulate confidence and further effort. No description of the cabinet, its mechanism or forces has been included, for the reason that much literature relating to these subjects has appeared during the past two or three years. The material used in the form of sprayed vapor, consisted of iodine, corrosive sublimate, menthol, fluid cosmoline, Gardner's pine needle extract, carbolic acid, eucalyptol and cocaine.

Rectal Insufflation of Hydrogen Gas as a Test of Injury of the Intestines in Penetrating Abdominal Wounds. — In a paper read before the Surgical Section of the American Medical Association at the recent meeting at Cincinnati, Dr. Senn presented the results of a discovery, or, perhaps, it might be called an invention, which will be of very great value to the profession and to those suffering from penetrating wounds of the abdomen.

Every method of securing accuracy in diagnosis is of value in proportion to its simplicity and readiness of application.

In the discussions concerning laparotomy after abdominal wounds, which have occupied so much of the time in medical-society meetings, and so much space in the journals, during the last few years, one point that has always been brought forward by those who incline to conservatism with regard to operative interference is the difficulty, or impossibility, of determining with certainty whether or not the gastro-intestinal canal has not been wounded by the blade or missile which has penetrated the abdominal walls.

Thanks to the ingenuity and persistence of Dr. Senn, this difficulty has been obviated, and now it is practicable for the surgeon called upon to treat a case of abdominal injury, readily to determine whether the gastro-intestinal canal is involved in the injury, and so act more intelligently upon the question whether laparotomy is indicted or not.

Dr. Senn took a hint from the method in use by plumbers to locate a leak in a gas pipe, and having first proved the permeability of the entire gastro-intestinal tract to air, he sought for some innocuous gas, which, when the intestine was inflated, would escape from an intestinal wound into the peritoneal cavity and from that through

the external wound manifesting its presence by some infallible test.

A series of 26 experiments demonstrated the permeability of the ileo-cæcal valve to gases without rupture or injury to any of the coats of the intestine. Another series of experiments demonstrated that the resistance of different portions of the gastro-intestinal canal is about the same, and everywhere greater than is necessary for forcing the gas to all parts of the tract. Still others demonstrated the practicability of distending the intestinal tract with hydrogen gas. Many of the experiments were made upon human beings, and some of them upon himself. He demonstrated still further the innocuous character of hydrogen gas upon the tissues of the body, and its prompt removal by absorption.

Further experiments demonstrated the applicability of inflation of the intestinal tract with hydrogen gas as a conclusive and infallible test of perforation of the canal.

The preparation of hydrogen gas by the action of dilute sulphuric acid upon metallic zinc is one of the simplest of chemical experiments; and no apparatus is necessary except a few feet of glass and rubber tubing, a couple of wash bottles, and a rubber balloon for containing the gas, and a suitable tube for passing it into the bowel.

If additional demonstration be deemed necessary besides the prompt distention of the abdomen by the gas which escapes from the intestinal wound into the peritoneal cavity, this can be secured by introducing a catheter or glass tube through the wall of the abdomen when the gas escaping from the outer end may be ignited.

If no escape of gas takes place from the intestine into the peritoneal cavity under a pressure of two pounds, it is certain that no wound of the canal has taken place.—*Courier of Medicine.*

MULLIN.—"Oi hev a chinder in me eye, from the gas-house!"

MRS. MULLIN.—"Sorra! sorra! This is pfwhat yez'll do: Hould yure nose wid wan hand; tur-rn th' lid av yure oye insidy-out wid th' other; kape yure mout' shut, an' shneeze like th' divil!"

MULLIN.—"Oi think Oi'll kape th' chinder, Rosie!"—*Puck.*

The Medical Press

OF WESTERN NEW YORK.

Published by THE LAKESIDE PUBLISHING CO., Buffalo, N. Y.

EDITED BY

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Subscription Price: $2.00 per Annum.

All business communications should be addressed to THE LAKESIDE PUBLISHING CO., Publishers, 41–43 Franklin Street; all others to the Editor, 510 Delaware Avenue.

BUFFALO, N. Y., NOVEMBER, 1888.

THE CHEMICAL TESTING OF THE GASTRIC JUICE.

That great advances are being made in applying to medicine the knowledge furnished by organic chemistry is well illustrated in a recent article in *Le Progres Medical.* It seems that during a few years past a number of reactions of the stomach acids with certain organic materials have been discovered. These reactions are found to be of great service for diagnostic purposes. By means of comparatively simple methods an accurate qualitative analysis of the gastric juice may be made.

For the detection of hydrochloric acid are used the two reagents, tropeoline and phloroglucine-vanilline. A solution of tropeoline is normally yellow but is altered by hydrochloric acid to a brown color.

Phloroglucine-vanilline consists of a mixture of two parts of phloroglucine and one of vanilline dissolved in thirty parts of absolute alcohol. Thus prepared, the reagent has a reddish yellow tint. Addition of hydrochloric acid, or of any mineral acid, changes the solution to a brilliant red.

An easy method of estimating hydrochloric acid quantitavely, and which is accurate enough for diagnosis, is found in the use of an aniline derivative, *vert brilliant.* Its aqueous solution is bluish green. In the presence of a one-tenth per cent. solution of hydrochloric acid it becomes green ; with a fifteen-hundredths to a two-tenths per cent. solu-

tion yellow; with a four-tenths per cent. solution, or stronger, it assumes a "dead leaf" color.

For finding lactic acid are used methyl violet, ferric sulphocyanide, and the so-called reagent of Uffelmann. An aqueous solution of methyl violet becomes from a pale to a rich blue in the presence of lactic acid.

Ferric sulphocyanide is decolorized by lactic acid.

The reagent of Uffelmann is prepared by adding a few drops of ferric chloride to a solution of carbolic acid. The resulting fluid, which is violet, becomes yellow with lactic acid, and is decolorized by hydrochloric acid.

To detect peptones the liquid under examination is made alkaline with potassium or sodium hydrate; a salt of copper is then added, and according to the amount of peptone present, a lilac, violet or rose color is obtained.

Pepsin is demonstrated by artificial digestion.

Propeptone also yields a precipitate on the addition of acetic acid and ferrocyanide of potassium.

In employing the reagents above mentioned, first of all, a sample of the patient's gastric juice must be obtained. Some withdraw it undiluted, others give water a short time previously, and others still prefer to have some simple kind of food taken, allowing the stomach to act on it a while before removing the contents.

It is found that lactic acid disappears from the stomach after digestion has proceeded from a quarter to a half an hour. Hence the diagnosis is founded chiefly upon the presence and amount of hydrochloric acid, and this feature is even made a basis for classification.

Digestive disturbances of the stomach are: those characterized by a deficiency, by a normal amount, or by an excess of hydrochloric acid.

Hydrochloric acid is found to be deficient in cancer of the stomach, and in dyspepsias depending on catarrhal and atrophic conditions.

The amount of hydrochloric acid is normal in nervous dyspepias, or where some intestinal trouble simulates gastric disease.

Excessive secretion of hydrochloric acid constitutes a form of dyspepsia only recognized recently. It is usually associated with atony of the stomach.

It is easy to see how great may be the value of the reagents named

in making a correct diagnosis between these various difficulties, and in deciding upon a rational method of treatment.

ON THE VENOM OF SERPENTS AND ITS ANTIDOTE.

The returns for 1886 show that 22,134 human beings perished from snake bites in India. The number of cattle killed by snakes is returned at 2,514. It is stated that 417,596 snakes were destroyed, and that 25,360 rupees were paid by the government as rewards for their destruction. The mortality from snake bite in Bengal is much larger among women than among men. They are usually bitten in the early morning, when they go out before daylight, either to fetch wood from the faggot stack or for some other domestic purpose. During the rainy season, when nearly all the rice fields are under water, the snakes take refuge on the higher plots of ground on which the villages are built, and they hide themselves in the little wood stacks and granaries in the court-yards of the houses; while, not unfrequently, they take up their abode in the house itself, where they are allowed to dwell with impunity, and are sometimes fed with milk, until, on some unlucky day, the wife treads accidently on the snake in the dark, and it turns upon her and bites her. From the bite of a full grown cobra death ensues in a very few minutes.

Such an item as the above, which is copied from an English paper, shows that the terrible importance of a subject which our local events seldom call to mind. But *apropos* to it *Forest and Stream* contains in its May and June numbers, a series of articles by Dr. Yarrow, of the National Museum at Washington, entitled "Snake Bite and Its Antidote." These papers relate many interesting facts concerning venomous serpents, besides reporting upon a number of experiments made with various alleged antidotes in connection with the bite of the rattlesnake.

The venom of snakes is the secretion of certain glands located in the roof of the mouth. The secretion passes from its gland through a canal in the tooth which constitutes the fang, issuing from an opening near the apex. The fangs of the rattlesnake are managed each by a distinct and special voluntary muscular apparatus. Therefore, it is possible for either fang to be used alone. The fangs, when removed, are replaced at much shorter intervals than is often supposed; in one case, after the lapse of but three weeks. The secretion of the poison gland is acid in reaction. It is harmful only when injected into the blood vessels or bruises, not when applied to mucous membranes. It causes death in the higher animals, probably, by its action on the respiratory centers in the brain. When recovery takes

place, it is eliminated by the skin and kidneys. It is a curious fact, which, though often denied, seems to be settled by Dr. Yarrow's experiments, that the venom of a snake is innocuous to its own species, and probably to all other snakes, as well as to some other reptiles.

Dr. Yarrow succeeded in obtaining all the venom necessary for his experiments by inducing rattlesnakes to bite at bits of absorbent cotton placed on the end of a stick, the neck of the reptile being grasped by a simple mechanical device. The cotton was washed of its venom in glycerine, and a solution containing one part of venom to eight of glycerine, was thus obtained. Three minims of this solution, when injected into a healthy pigeon, sufficed to kill it in less than an hour.

A vast number of remedies have been proposed for the cure of snake bite; everything almost that science or superstition, especially the latter, could suggest. No antidote seems to have been more highly lauded than permanganate of potassium. The hypodermic use of a one per cent. solution of this chemical was suggested by Prof. de Lacerda of Rio Janero. He claimed most astonishing success with it in treating the bite of a poisonous snake in Brazil. Other writers have differed in their opinions as to its efficacy. Dr. Yarrow shows by experiments on rabbits, fowls and pigeons that the permanganate is in no sense a physiological antidote. It is, however, a chemical antidote. When it is mixed with rattlesnake venom, the virulence of the poison is destroyed. If, therefore, in a case of snake bite, it can be inejcted, under circumstances such that the absorption of the poison is prevented, as in a ligatured limb, the proceeding would be of great advantage.

The drug which, of all, has the most to recommend it is jaborandi. Since the venom of snakes is eliminated by the skin and kidneys, any agent which will hasten this elimination must be of the greatest value. Now jaborandi, as is well known, increases greatly the amount of all the secretions, and among them of urine and perspiration. Dr. Yarrow tried this drug upon a number of animals, and plainly demonstrated its importance. Doses of venom which ordinarily would have been toxic, were counteracted by the use of jaborandi, or, at least, death was much delayed.

Among other remedies which have been proposed is ammonia. This seems now universally to be admitted as useless, or even more dangerous than the venom itself.

Alcohol in some form or other is popularly supposed to be a specific for snake bites. Nevertheless, Dr. Yarrow believes it to be valuable only for its stimulating effects. He omits to mention the view held by some that by increasing vascular tension it may oppose absorption of the venom.

A great number of other reputed antidotes are discussed, such as the species of euphorbia, liquor potassæ, and the preparation of iodine and arsenic, none of which seem to be of great service.

It is interesting to note that the so-called "snake stones" really seem sometimes to give excellent results. Snake stones are simply pieces of porous clay or calcined horn, their usefulness being due, no doubt, to their highly absorbent properties. In two cases, in which venom was injected into fowls and snake stones were applied, the birds recovered.

A method of procedure in a case of snake bite is suggested as follows: If the bite be on a limb, pass a tight ligature about the member above the wound. Make several incisions through the points where the fangs entered, which should bleed freely. Either the patient or some bystander should suck the wound, or a cupping glass or some substitute for it should be applied, in the hope of withdrawing some of the venom. When available, 20 per cent. permanganate of potassium solution should be injected into the injured tissues. Jaborandi in some of its preparations should be given till profuse perspiration and salivation are induced. Stimulants are to be administered as the symptoms require. When necessary, artificial respiration may be tried as a last resort. This plan of treatment includes all that the best authorities have advised, and ought to offer excellent hopes for recovery. Many cases must of course occur in which this method cannot be carried out in full. However, if it be adhered to as far as possible, probably as much will have been done as the present state of our knowledge warrants.

Dr. Yarrow refers also to certain tests made by Prof. Henry Sewell, of Ann Arbor, with a view to ascertaining the possibility of preventive inoculation. Prof. Sewell shows that animals which are

subjected to gradually increasing doses of rattlesnake venom acquire a tolerance for the poison. This part of the paper is quite suggestive, partly because of the kindred question as to the serviceability of preventive inoculations against rabies. The papers constitute a series of great value, and present us with our most reliable data.

THE CORONERSHIP OF ERIE COUNTY.

If the public at large only realized it, there are many most excellent reasons why the coroners of a county should be men well versed in the technicalities of medicine and medical jurisprudence. Such a thing seldom happens here or in any other county as the selection of a man for this important position on any other grounds than the political influence he can bring to bear. This is of course all wrong, but no more so than many other political abuses which our good citizens bear with amazing indifference.

We are led to make these remarks because there now appears on one of the county tickets the name of a medical man, Dr. Ira C. Brown, as an aspirant for this position. The doctor is fully as well qualified for the position, in a general way, as any of his predecessors ever have been, and has moreover added to his general elligibility the excellent training and qualification of a good medical education. Surely no reasons need be added why the profession of this county should unite their influence and their votes, and endeavor to place the important responsibilities of the office upon the shoulders of a man whose special training fits him for the burden. The investigations which the coroner's duty often imposes upon him are too important and too technical to be entrusted to any man whose sole recommendation for the place is the influence which he can exercise in some caucus or political ring.—*Verbum Sap.*

THE following excellent programme has been made out for the Buffalo Medical and Surgical Association, for the next six months, by its President, Dr. Van Peyma :

NOVEMBER 6.—W. A. Wheeler, M. D. : Certain Diseases of the Testicle. H. R. Hopkins, M. D. : Basedow's Disease.

DECEMBER 4.—F. H. Potter, M. D. : Treatment of Acute Coryza. Roswell Park, M. D. : Radical Cure for Hernia.

January 1.—Ernest Wende, M. D.: Parasitic Skin Diseases. W. C. Phelps, M. D.: Surgery of the Knee-Joint.

February 5.—Discussion on Syphilis: Its Later Manifestations and its Curability. Discussion by Dr. Charles G. Stockton: Medical, including Nervous. Dr. Roswell Park: Surgical. Dr. William H. Heath: Genito-Urinary. Dr. Elmer G. Starr: Eye and Ear. Dr. F. H. Potter: Throat. Dr. Ernest Wende: Skin. Dr. M. D. Mann: Heredity.

March 5.—H. E. Hayd, M. D.: Impotency, Its Causes and Treatment. Lucien Howe, M. D.: Bacteria in Conjunctivitis.

April 2.—W. H. Heath, M. D.: Frequent Micturition and its Treatment. J. Falk, M. D.: The Toxic Effect of Alcohol and Tobacco on the Eyes.

The Society will hereafter meet in the rooms of the Mechanics' Institute, at No. 7 West Mohawk Street.

* * *

Prof. Victor Horsley, of London, who created such a furor at the recent Congress in Washington by his brilliant exposition of the principles of cerebral localization, which he has done so much to elucidate, paid a flying visit to Buffalo last month. He gave a most entertaining lecture at the Medical College, October 9th, brief notes of which will be found upon another page. On the evening of the 10th, he was tendered a reception at the home of Dr. Park. Here all who met him were as much charmed by his cordial and unassuming character as they had previously been by his writings or his addresses.

By his labors, and those of Prof. Macewen, the surgery of the brain is now elevated to the same high plane that abdominal surgery has attained by the work of McDowell, Atlee, Wells and others as well known.

* * *

The Hoagland Laboratory, corner Henry and Pacific streets, Brooklyn, is now completed and open for students or for the prosecution of original work. Private rooms are furnished, and it is intended to furnish all facilities. Information can be obtained from Dr. J. H. Raymond, at the above address.

THE COLORADO METEOROLOGICAL ASSOCIATION are issuing a monthly bulletin entitled "*Colorado Weather.*" It is published at Colorado Springs, at the very modest price of fifty cents a year. It gives all the information needed in the climatological study of the State, is compiled with apparently great pains, and will repay for time spent in its examination those interested in the relative study of climate and disease.

* * *

IT is known that antipyrin, being a patented article, is sold at a price far above its value, being now quoted at $1.40 per ounce. Its equivalent, called, for the purpose of evading the patent restrictions, *analgescine*, made by a similar if not identical process, and therapeutically the same, is patented in this country, but not in France, from whence it is imported and sold at a price about one-fourth of that charged for antipyrin. So at least we are informed by a well-known druggist in town.

* * *

THE first number of *The University Medical Magazine* has made its appearance. It is devoted especially to the interests of the University of Pennsylvania, and is conducted under the direction of its medical faculty, though ably edited by Drs. DeSchweinitz and Hare. In every respect it is a credit to the institution which puts it forth. Its price is two dollars per annum.

* * *

La Medicine Hypodermique is the title of a small monthly journal recently started in France. While ostensibly devoted to hypodermatic mediation, we note in its pages reports of successful ovariotomies, and various other articles which show that its prime object shall not be permitted to be its sole one.

Society Proceedings.

BUFFALO MEDICAL AND SURGICAL ASSOCIATION.

REPORTED BY W. A. HODDICK, M. D., SEC'Y PRO TEM.

Regular meeting, October 2, 1888, the President, Dr. Van Peyma in the chair. Dr. Hartwig read a paper on Chronic Pneumonia, followed by Dr. Pryor who read an interesting paper on Treatment

by the Pneumatic Cabinet, which will be found in another part of this issue.

In the discussion of the papers which followed, Dr. Bartlett said that he had had several cases of phthisis under treatment, during the past year, in which the tubercle bacillus had been demonstrated by microscopic examination by Dr. Park, which terminated in recovery. He thought the Cabinet useful in incipient cases and urged greater care in diagnosis in the earlier stages of the disease. He thought the specialists, and laryngologists in particular, should include in their studies also diseases of the deeper structures, *e. g.*, lungs and bronchi. The present mode of treatment seems to be drifting toward antisepsis. Fumes of sulphur had in many of his cases proved beneficial, although in some it irritated the mucous membrane.

Dr. F. H. Potter emphasized the statement made in Dr. Pryor's paper, in regard to cough being due to irritation in the pharynx and upper air passages. He recommended Semple's Inhaler. He had used Menthol in a 30 to 50 per cent. solution with benefit.

Dr. Park wished to know if the air pressure gauge used in the Cabinet was equivalent to pressure as measured by the barometer. He thought that the matter of atmospheric pressure did not receive sufficient consideration and that in the selection of climate, one having an equable atmospheric pressure should be advised.

Dr. Bartlett had patients in California who had been greatly benefited by the change.

Dr. Hartwig asked if the pressure could be varied during inspiration and expiration.

In closing the discussion, Dr. Pryor premised by saying that he did not believe in the existence of chronic pneumonia. In the incipient stage of pulmonary disease, the mechanical effect of the Cabinet aids in stretching and distending indolent and indurated portions of the lung. He had not experimented with oxygen but had used menthol with benefit. Cough is generally due to a pharyngitis and not to irritation in the lungs, and disappears under appropriate local treatment. He agreed with Dr. Park that insufficient attention is given to the subject of atmospheric pressure. The pressure as measured in the Cabinet is equivalent to pressure measured by the barometer. He generally used from one-half to one inch. The

pressure can be brought to bear either on the surface of the body or internally on the lung surface, thus causing forcible expiration and inspiration. In regard to sending patients out of town ;—if they can afford it, well and good, but he thinks it wrong to send them away during the later stages after septic symptoms have developed.

Small-pox was given as the prevailing disease. In its discussion, Dr. Bartlett said he had little faith in bovine virus. He suggested the formation of a syndicate to establish a plant for propagation of virus, and to control its sale to physicians. Dr. Wende mentioned the fact of his brother having several cases of cow-pox under treatment. He had encouraged him to inocculate some calves, and invited physicians interested to call upon him. Dr. Hayd attributed the better results he had obtained of late to the dulling of his instrument. He thinks six spots should be made, and cited statistics to show a decrease in mortality proportionate to the number of inocculations.

Dr. Hartwig had an abscess develop as the result of one of his inocculations. Dr. Dorland added his testimony as to the efficiency of vaccination in preventing small-pox, and as to its communicability during the early stages by citing a case where a family of six had been exposed during the first stages of the disease and then were vaccinated. Five of the inocculations were successful but the sixth individual in whom the vaccination did not take was subsequently taken down with the dread disease. Dr. Hartwig believed vaccination after exposure prophylactic.

Essayists for next meeting announced were Dr. W. A. Wheeler, subject, Certain Diseases of the Testicle, and Dr. H. R. Hopkins, subject, Basedow's Disease.

It was decided to accept the offer of the Machanics' Institute renting the society their rooms for meeting purposes, for the sum of $50 per year.

Sandal Wood Oil is recommended by Dr. E. Philbert, as a remedy for renal colic, who used it himself in several attacks. Four of the usual capsules were taken for a dose, and a warm bath was used at the same time. He believes that the oil gave him great relief from one of the most painful of maladies.—*Practitioner*

Translations.

THE ILLNESS OF EMPEROR FREDERICK III.

From Official Reports by Profs. Bardeleben, Von Bergmann, Dr. Bramann, Profs. Gerhardt, Kussmaul, Drs. Landgraf, Moritz, Schmidt, Profs. Schrœtter, Tobold and Waldeyer.

Especially Translated for "The Medical Press" from the "Deustche Med. Wochenschrift."

(CONTINUED FROM PAGE 443.)

This was the only diagnosis which Prof. Schrœtter possibly could have reached, when we reflect upon what he had gathered from the records in Berlin, from what Mackenzie and Schrader had told him, and lastly, yet most important, from what he had observed himself, notwithstanding the œdema, the enlargement of the larynx when viewed from without, although the lymphatic glands were but little swollen, and finally the consideration of the larngoscopic investigation. Looking downwards from the arytæno-epiglottidean folds, the œdema on the left side of the larynx presented jutty prominences, never observed in a simple tumefaction. They could only be seen when the patient turned the upper part of his body towards the right, and his head to the left, to which he willingly consented. The total immobility of the left side of the larynx, with its accompanying enlargement externally, could only be regarded as a disease of the deeper structures, respectively the circo-arytænoidean joints.

Should these manifestations be considered a perichondritis crico-arytænoidea, the question again arises, what are the causes upon which it depends? The repeated appearance of the œdema, and the chronicity of the disease, with special regard to the non-formation of abscesses, may be justly held as opposed to a simple perichondritis. The exclusion of all other primary disorders, the age of the patient, the tumefied larynx, especially the peculiar facet-like aspect of the swelling, and the enlargement of the lymphatic glands, all united to show the existence of a malignant new formation.

Schrœtter further stated that in reference to therapeutics there were but two possible methods. 1st.—Simply to wait until it became necessary to relieve, by tracheotomy, the suffocation produced by the gradual growth of the tumor, an operation not intended to cure

but only to prolong life, without interfering with the primary evil. 2nd. — The radical cure by extirpation. This operation may be divided into the removal of one-half of the larynx or the whole. After the first examination, Prof. Schrœtter was obliged to doubt the efficacy of removing one-half of the larynx, on account of the present œdema, but this he claimed could be definitely settled during the operation. Yet he feared that it would be necessary to totallly extirpate the organ. Naturally, to ensure confidence, the patient was to be informed of the danger connected with such a difficult procedure. Prof. Schrœtter fancied that the scientific authorities who managed the case while at Berlin should be consulted to decide the undertaking of this trying task.

A correct diagnosis appeared to Prof. Schrœtter of the utmost importance, with a view that no time should be lost with further useless methods of therapeutics. Should the removal of the organ *in toto* be determined upon, they must delay no longer.

Following, Dr. Krause also expressed his opinion in writing, which corresponded to Schrœtter's. Yet he spoke of the operation more fully and in an adverse manner.

In the afternoon, the physicians were received by Her Royal Highness, the Crown Princess. Prof. Schrœtter read his protocol, which immediately made manifest a feeling opposed to an operation. The Crown-Princess was upheld by Dr. Hovell, whom she asked for an opinion. Prof. Schrœtter antagonized the method of removing segments for histological examinations, as recommended by Mackenzie, for such operative procedures certainly hasten the development of the new growth, and besides it was very doubtful whether the most skillful investigator could state anything definitely in this stage of the disease from a fragment taken from the growth.

November 10th, at half-past ten o'clock, another examination took place, in which Dr. Schmidt participated. As the swelling had somewhat subsided, not only the characteristic alterations on the left side were distinctly visible, but a nodule on the right vocal cord could also be demonstrated, which, if Schrœtter previously had any doubts, would have strengthened his opinion, more so that it was impossible for him at the medical conference to change his diagnosis or his therapy. Dr. Schmidt also fully agreed with his opinion.

On the same day Schrœtter had a conversation with the Crown Princess. She in a resolute manner spoke against extirpation, and only favored tracheotomy to prolong the life of her beloved husband, which she considered but possible in this wise. Prof. Schrœtter then proposed to ask Prof. Von Bergmann to keep himself in readiness, and on an instance to hasten to San Remo. To feel secure, he was to send immediately, during the meantime, one of his most skillful assistants.

Prof. Schrœtter, in the evening, at the request of his colleagues, published a memorandum, which stated in detail the chances of the extirpation of the larynx as compared with simple tracheotomy. Among all physicians this action was universally approved of. It was intended to serve as information for His Royal Highness the Crown Prince.

The last examination was made in the forenoon of November 11th. The royal patient, after having used compresses of ice, and after having swallowed pieces of the same since the day before, the œdema became less, but the characteristic appearance of the disease was unchanged. Prof. Schrœtter now gave the Crown Prince an account of the examination and also the views of the other physicians. The memorandum which had been prepared on the day previous on the chances of the different operations was handed to the Crown Prince by Dr. Schrader. But a few minutes elapsed, whereupon came a written answer, expressing the will of His Royal Highness, preferring tracheotomy to extirpation.

Concerning the examinations on the 10th and 11th of November, Dr. Moritz Schmidt gave the following report :

" On the 10th I found a yellowish transparent œdema existing on the left arytæno-epiglottidean fold. It was so large, that but the anterior two-thirds of the right vocal cord and about one-fifth of the left were visible. Beneath the last I noticed a dark red swelling, covered with a yellowish leyer. The entire mucus membrane of the larynx was much reddened. On the 11th, the œdema had subsided enough so that I could distinctly see the greater part of the left vocal cord, the posterior wall, and the whole of the right cord. The mucus membrane of the larynx was still much injected. Under the entire length of the left vocal cord the regio subglottica was swollen, so that it protruded above the cord, being of a dark red color. Along the entire length of the

swelling I saw but a single spot, which was irregular, slightly arched, and yellow. I called it a superficial ulceration. The swelling of the regio-subglottica extended acrosss the posterior wall towards the right side, terminating on the posterior third of the right vocal cord in little red nodes, the size of a hemp-seed. The swelling also extended somewhat across the anterior angle of the glottis towards the right. The left vocal cord did not move. I found the lymphatic gland over the ligamentum conoideum as large as a pea. The left submaxillary glands were not swollen much. This might have depended upon the existence of a previous parulis.

"Respecting the evil I was compelled to consider it as carcinoma, causing a perichondritis, from its slow development, extending through ten months; the age of the patient, and the laryngoscopic appearance, favoring this view. I noticed particularly that I had never seen such a nodular appearance except in carcinoma, as presented on the right vocal cord."

As the swelling had already crossed the median line, operative success depended wholly upon the total extirpation of the larynx, while tracheotomy would only be palliation.

The declaration made at the assemblage of physicians, November 9th to 11th, at San Remo, was as follows:

"After repeated and searching examinations, it was clear to the assembled physicians that His Imperial Highness was afflicted with cancer of the larynx. In regard to treatment the different possibilities were also thoroughly discussed. His Royal Highness was made cognizant of the same. The operation of tracheotomy, when it became necessary, was advised." Signed: Morell Mackenzie, Schrœtter, Schrader, Krause, Moritz Schmidt, Mark Hovell.

It is well known that His Royal and Imperial Highness, after being instructed as to the meaning and chances of a total extirpation, for other than this was now out of question, owing to the extension of the disease on the right side, opposed it, and expressed his determination to the physicians in writing.

With great composure, yes with true heroism, the royal patient received the information concerning the gravity of his illness. It seemed even to those about him, despite the intention which this announce-

ment of the physicians occasioned, that his frame of mind became calmer and better, yea, by degrees even cheerful.

Immediately after the conference at San Remo, Dr. Schmidt returned to Berlin, where he arrived on the morning of Nov. 13th, and soon thereafter he and the court physician, Dr. Leuthold, as well as Prof. Von Bergmann, were received by His Majesty, to hear their report.

As the assembled physicians at San Remo considered the removal of the larynx in the most favorable case, capable of greatly influencing the future welfare of the patient, they could not therefore recommend the operation without reserve. Although they had fears as to the final outcome, the question was again put whether they should not still urge the operation. As otherwise the case would be hopeless, the wish was universally expressed that an official report of the history of the disease should be given, with the reasons why the operation planned in May and June had been abandoned, and why the question of operation was again brought up at such a late date. For this purpose Count Stolberg-Wernigerode, deputy minister of the imperial house, called the physicians Von Bergmann, Wegner, Gerhardt, Tobold, Leuthold, Schmidt and Landgraf to a conference in the imperial ministerium.

The protocol of this conference, as well as the causes which led to the same, formulated by the attending physicians, according to their notes, drawings, and history of the disease, are incorporated in the minutes of the imperial ministerium, and has served as the foundation for the previous exhaustive and oft-repeated reports.

The assembled physicians, like those at the consultation at San Remo, were of the opinion that at that time it was a question of total extirpation, and not the lesser operation proposed in May. Although there are several well-authenticated cases of permanent recovery following total extirpation, nevertheless the physicians present agreed that in the undertaking of such an operation, in no small degree dangerous to life, besides maiming to the patient, only the will of the sufferer should decide. To interfere therefore required the permission of the patient. Why the operation was not performed during the summer is shown in the aforesaid reports. The associated physicians in June of the year previous were assured of the necessity for operation by the return of the growth. They were compelled to attribute the fault of

the tardy interference to that physician who neglected the tumor, and who even then contested its nature, although Dr. Landgraf maintained with the utmost certainty to the contrary, and urgently asked for another consultation.

The report of Dr. Schrœtter, read by Dr. Leuthold, also the oral statements of Dr. Schmidt, verify the fact that at that time an œdema of the ary-epiglottic fold was developing at the entrance of the larynx, which would necessitate an immediate opening of the trachea to obviate the danger to life. Consequently the physicians expressed themselves with great decisiveness to the effect that a surgeon familiar with the operation of tracheotomy be immediately sent to San Remo, to lend operative assistance in the event to be feared. As the proper person for this purpose Dr. Von Bergmann nominated Dr. Bramann the first assistant of his clinic. The others present agreed to this appointment.

Dr. Bramann was permitted to see the patient but three times before the operation.

He could demonstrate the distinct and continuous growth of the tumor. From the 14th to the 17th of January there was shortness of breath; at the same time a bit of grayish tissue fluttering in the larynx was finally coughed up on the 17th. It was sent to Prof. Virchow for investigation. The result of the examination was made public, but the fact that it was previously trimmed and examined by Dr. Hernig, who was present at San Remo, so that Virchow did not receive the whole undisturbed piece, but only the greater portion, was not published.

Virchow designated the piece sent to him as a necrosed putrid and decomposing part of the larynx which had sloughed off from the surface to a depth of 4 mm. in some places. Only in one spot which was quite dense could be seen the so-called nested (onion) epidermoidal cells in almost every microscopic section. These nests were always found in the upper layers or in close proximity to the same. Deeply seated epidermoidal nests could not be discovered in spite of the most searching examination. Therefore the favorable opinion against the diagnosis of cancer was advanced.

On the 29th of January, Sir Morell Mackenzie again appeared in San Remo. On the evening of his arrival he called on Dr. Bramann and asked him to examine the patient with him on the following day.

At the time tracheotomy was not necessary, but what the near future might bring forth one was not able to foretell. During the consultation on the morning of the next day he repeated the assertion that the left side had decidedly improved, the swelling had diminished so that even the left vocal cord was visible, which was in no wise disturbed; on the contrary, to the right the swelling had increased since Christmas; still it was of an imflammatory nature.

[TO BE CONTINUED.]

ON WANDERING HEART.

TRANSLATED FROM THE GERMAN BY W. H. BERGTOLD, M. D., BUFFALO, N. Y.

At the seventh Congress of German Physicians, Rumpf, of Bonn, reported five cases of excessive mobility of the heart, originating in emaciation or removal of obesity. The first case which was reported was a beer brewer of a healthy family, who, up to the attempted fat-cure, weighed over 200 pounds. He subsequently lived for a year on fillet and white bread alone, and drank, instead of the accustomed eight quarts of beer (daily) only a little sour wine. Following this "cure" he lost 50 pounds. This loss was accompanied by great weakness, attacks of dizziness, anxiety, difficulty of breathing and inability to lie on his side. Examination of the organs in the upright or dorsal positions gave no deviation from the normal. The lungs proved normal by percussion and auscultation. The liver showed normal proportions. The inspiratory and expiratory tracings gave their usual curves. The heart-dulness exhibited the usual irregular quadrangle in its accustomed position, whose right side measured 5½ cm., and base 6½ to 7 cm. The apex stroke was situated 6½ cm. from the breast-bone. The relative heart-dulness surrounded the absolute area to the left and above in the form of a band 2 cm. wide. As soon as the patient moved from the upright or the dorsal position to the lateral a marked change occurred in the apex stroke and heart-dulness. With the left lateral position the area of dulness became so far removed from the breast-bone that only the right superior point touched the junction of the third rib and the sternum. The area of

dulness now shaped itself as an irregular triangle, the left corner lay in the fifth intercostal space on a line with the center of the axilla, while the right was situated in the sixth intercostal space 2 cm. from the sternum. The right border of this area had a length of 8 cm., the base 11 cm., and the superior and left 19 cm. Between the sternum and the right border of the heart were clear and significant lung sounds. With the right-sided position the absolute heart-dulness disappeared completely; only a relative dulness of perhaps 2 cm. width remained on either side of the sternum from the fifth rib to the sixth intercostal space. The heart shock now exhibited itself directly near the sternum in the sixth intercostal space. The distance which the apex traveled amounted, from right to left, to $6\frac{1}{2} - 7$ cm. (from extreme right to normal point), in all from 13 to 14 cm. (from extreme right to extreme left). The speaker excluded dilatation of the heart, pericarditis, pluritis and lung disease by repeated examinations, and believed that he treated an abnormally great mobility of the heart which was established through the fat-cure (Hungerkur).

The other four cases gave entirely similar histories, though the disorders were not so great. Here also the dorsal position was alone present, while the lateral one produced intense trouble, pain, anxiety, increase of the pulse 50 to 60 beats per minute, weakness, dizziness and inability to work. In four cases the history gave a direct relation to fat-cure or great emaciation. The loss of weight in the least was 20 pounds, in the greatest 60 pounds.

Is loss of fat in reality the cause of these appearances? It can be objected that the abnormal heart mobility already existed earlier, and was perhaps of slight secondary moment, perhaps became intenser through the loss of pericardial fat from emaciation and belonged to such changes, or that the existing symptoms did not have anything at all to do with the mobility of the heart. Against the last objection are the subjective and objective appearances occurring with the change from the dorsal to the side position, such as the anxiety, pain, increased pulse rate, etc. But the objection that the observed heart mobility was only one of the accompanying and modifying factors of the disease history and is not to be called the essential cause, can only be settled by an unusually large amount of material. If the same mobility is found in normal men, without preceding ema

ciation or without changes of the size of the heart, the significance of the diseased appearances described in the cases as arising from the fat-cure would be greatly lessened. The essayist endeavored to agree with these natural objections, but under the circumstances he could not construe a passive heart mobility in the above cases. All things tend to prove that the relative and absolute heart-dulness in comparison with the sternum undergoes, with the lateral position, an alteration amounting on the left side to 2 cm., on the right side to 1½ cm., (in each side from the center of the sternum). This variation, however, proceeds unslopingly from the area of the apex stroke, which remains true to its normal position. But there are also cases in which the difference of heart-dulness is accompanied by a deviation of the apex beat. The reporter had observed this in normal men (with the lateral position) only in the minority, and then with clear boundaries. The sideward movement of the apex stroke amounted, in these cases, to 2 cm., seldom more than 3 cm., to the left, or to the right not more than 2 cm. With the right lateral position also appears, as Gebhardt has already reported, sideways from the right sternal edge, a relative right-sided heart-dulness with clear circumference. These cases are still rarities. These differences figure entirely otherwise in pathological cases. In a tabulation of cases with diagnosis of tuberculosis of the lungs, in which there had been great loss of weight, Rumpf could detect a marked deviation of the apex stroke in the lateral position. Here the changes to the left were from 4 to 5 cm.; to the right from 3 to 9 cm. The area of dulness was the same as in his cases. The patients could not assume the lateral position without anxiety and discomfort appearing. Rumpf also found a similar movability of the heart's impulse and dulness in a well-known case of progressive muscular atrophy, in which there was an excessive loss of fat tissue and where the patient had lost 40 pounds. Here the deviation of the apex stroke on each side was over 4 ctm. These observations on diseases with great emaciation and with the negative results in normal men, the essayist derived as further support for his theory on the cause of too movable heart. He takes, however, no stand that the fat-cure is the essential cause of the abnormal heart mobility in the cases under consideration.— *VII. Kongresses fur innere Medicin; Bericht der Centralblatt fur Klin. Medicin, 1888, No. 25.*

Selections.

HOMAN (G.) ON THE IMPORT OF ENLARGED VENOUS RADICLES IN THE EPIGASTRIUM.— Several years ago, during the physical examination of a considerable body of men, my attention was quite frequently called to instances in which distinct venous markings occurred in the epigastric region, and in the course of a re-examination of the same body of men recently concluded, the matter still more strongly attracted my attention.

These markings occurred in perhaps 20 per cent. of all the men examined, varying in degree from a few faint traces or twigs to numerous long branches, tortuous or waved, approaching in character to varices, and in more severe cases arranged to the eye in the form of a segment of a circle, the convexity being upward. These distinctly marked vessels, streaming in diverging lines upward from a common margin near the lower border of the thorax, gave to the eye of fancy some resemblance to the boreal aurora, a section of sunrise or saintly aureole.

This peculiarity of appearance is explained by the arrangement of the vascular supply of the middle pectoral and upper epigastric regions. The internal mammary veins are the conduits by which the drainage of these parts is accomplished, the venous radicles descending from about the line of the nipples to the middle lower border of the thorax, where they suddenly and sharply turn inward and empty into the veins just mentioned, two on each side, which pass upward inside the chest cavity a little exterior to the margin of the sternum, and, after uniting into a single trunk, emptying into the innominate veins on either side of the body.

The presence of these vessels to a marked degree in connection with cases of valvular disease of the heart first drew my attention to them as having an important clinical bearing, their anatomical relation and course giving to them peculiar significance as affording probably one of the earliest indications of obstructive lesion on the right side of the heart, and in the lungs, as well as of intrathoracic plethora generally.

While in near relation with the heart and directly connected with it by the innominate veins and cavæ, the double turn made by the

contents of these vessels in reaching the right auricle makes their peripheral terminals probably more sensitive, and the first to respond to any narrowing or obstruction in the passages of the heart, or pressure within the chest; more so than any other vessels that appear on the surface of the body. And in this manner they may constitute, perhaps, the earliest objective symptom of the disorders suggested.

The blood delivered to the heart by these channels travels a route somewhat similar in profile to an elongnated S, or "pot hook," both bends being abrupt and tending to weaken the force of the current, in addition to the impediment of gravitation. The fact that there are two veins to each artery favors the supposition that the former vessels are especially liable to obstruction and varicosity.

I am disposed to think that besides organic hindrances that may exist in the cavities and gateways of the heart, this symptom may be developed to some extent by enfeeblement of respiratory power, by gluttony and drink in habitually overdistending the stomach, and by general corpulence by which the chest within and without is weighed down by a burden of fat.— *St. Louis Courier of Med.*

Toxic Effects of Iodoform.— In a paper read before the American Dermatological Association, Dr. R. W. Taylor reports observations made by himself and several other physicians in 24 cases in which toxic effects have been noted from the topical application of iodoform. In 16 of these cases constitutional symptoms were observed in varying degrees, in conjunction with a well-marked exanthem. In nine cases the rash existed alone, without any apparent systematic reaction to the toxic agent. The skin lesions appear, as to their relative frequency, in the following order: First, erythema; second, eczema; third, purpuric spots. In most cases the development of the symptoms was quite rapid.

As to the systematic toxication, the symptoms observed are grouped under three heads: (1) Loss of appetite, headache, excitation or depression, mild delirium or loss of memory and sleeplessness. (2) Absolute anorexia, intensification of the head symptoms, perhaps dementia, mania, or melancholy, weak and rapid pulse, mild fever and emaciation. The third degree is an intensification of the second; the patient dying in collapse. Only one case is reported in which death

resulted. Dr. Taylor says that the practical lessons taught by the collective knowledge of the nature and action of iodoform should be well remembered, and may be concisely stated as follows: Its use is indicated: (1) On fresh wounds. (2) On diseased surfaces—gangrenous, chancroidal, phagedenic, syphilitic, tuberculous, and on those slow to take on healthy granulations. (3) On the surface of necrosed bone. Its use is contra-indicated: (1) On freshly cut bone. (2) On granulating surfaces. (3) In cases in which it is known or found to produce toxic effects. Modes of use: (1) In wound cavities or in the natural cavities as small a quantity as possible should be employed; in the former it is preferable to use it in the form of gauze. (3) It should never be rubbed with the finger. (4) Its application should be renewed as frequently as possible. (5) Such aids to absorption as tightly fitting bandages and impermeable dressings should not be used. (6) Its use should be discontinued as soon as healthy granulations appear. (7) It should not be used coincidently with any other antiseptic, carbolic acid especially (Mosetig—Moorhof). (8) It should be used with great caution in the young and in the old, in anæmic and neurotic persons, and those suffering from weak heart or Bright's disease; also in very fat and flabby subjects. (9) Should toxic symptoms appear, the iodoform dressing must be promptly and thoroughly removed.

Cerebral Symptoms in the Pneumonia of Children.—Dr. L. Emmet Holt dwells upon the importance of promptly recognizing the cerebral symptoms of pneumonia. In the *Medical Record*, April 7th, he makes prominent the diagnosis, and thinks these cases demand more careful and repeated examinations of the chest.

How can these cases be distinguished from meningitis?

Cough is usually present, but it is wanting in the first two or three days in a sufficient number of cases to make it of little value in the doubtful, obscure ones.

Activity of the alæ nasi may be seen in many other conditions, but it is rarely absent in pneumonia.

Alteration of the pulse-respiration ratio is more important than any other single symptom. Accelerated respiration, out of proportion to pulse and temperature, should always lead us to suspect the lungs,

whatever other symptoms are present. Irregular respiration, especially of the Cheyne-Stokes type, is almost never seen in pneumonia.

The slow, irregular or intermittent pulse in meningitis does not occur in pneumonia. Irregularities and intermissions in a rapid pulse are quite common but are of no significance.

It is very rare for the temperature in meningitis, either tubercular or cerebro-spinal, to remain so high as we commonly find it in pneumonia. In fact, Thomas ("Gerhardt's Handbuch") asserts that a persistent high temperature almost certainly excludes meningitis. The loss of knee-jerk is the rule in meningitis (Hughlings-Jackson and Angel Money). I am not aware that it has been recorded to be absent in pneumonia and can see no reason why it should not form as valuable a symptom for differential diagnosis of meningitis from pneumonia as it is said to be from typhoid fever.

Localized paralyses are not met with in pneumonia unless there be a complicating disease in the brain.

The cerebral symptoms of pneumonia are commonly less severe and not so continuous as those of meningitis, so that the progress of the case nearly always clears up the diagnosis by the rapid subsidence of the nervous symptoms at the crisis, although we may have been in some doubt up to this time.— *Columbus Med. Journal.*

External Application of Sulphur in Sciatic Neuralgia.—A few years ago in the Therapeutical Society of Paris, a discussion arose as to the best treatment for sciatica. Of course numerous methods were brought forward. The most novel, however, was one suggested by Dr. Henri Gueneau de Mussy. This treatment, said Dr. de Mussy, had been used in England with remarkable success. The method simply consisted in laying the affected limb in a bed of the flowers of sulphur, which was spread upon a cloth. How the sulphur acted was not known, but it was noticed that the urine was strongly odorous of sulphuretted hydrogen. The treatment was followed by speedy relief, and, as a rule, the patient was entirely free from pain in less than 24 hours. Dr. Henri Gueneau de Mussy told of a case where the valet of a certain ambassador had been seized with a most violent attack of neuralgia. On the following day, the ambassador was to leave the city on a long journey, and was in great distress for fear that his servant

could not accompany him. Dr. de Mussy having been called, immediately prescribed the external application of flowers of sulphur, and on the following morning the recovery was complete, and the servant was able to undertake the journey, to the great satisfaction of his master. Dr. L. Duchesne has recently adopted this treatment, and its use has always been attended with marked success. In an article on the subject in the *Journal de Medecine* for January 15, 1888, Dr. Duchesne tells, among others, the following case: A lady, aged about 48, and of good constitution, had been for some time past a most horrible sufferer from frequent and violent attacks of sciatica. She had tried innumerable remedies without ever finding any lasting relief. Dr. Duchesne at once made an application of flowers of sulphur to the affected parts. The limb was imbedded in the drug and covered with a cloth. In the morning, much to the patient's satisfaction, the neuralgia had entirely disappeared. Several years elapsed, but there has never been a sign of the neuralgia's returning. The treatment is both harmless and easy, and is apparently attended with the best results, and is therefore worthy of the attention of the profession.— *Therapeutic Gazette.*

Simple Methods of Reviving Persons Apparently Dead.— At a meeting of the last Congress of German Scientists, Dr. H. Frank mentioned that there are but two ways to stimulate the heart— electricity, and mechanical concussion of the heart. The first is considered dangerous by him, as it may easily destroy the last power of contraction remaining in the organ; but what is termed "pectoral concussion" is decidedly preferable. Frank's method is as follows: He flexes the hands at the wrists to an obtuse angle, places them both near each other in the iliocæcal region, and makes vigorous strokes in the direction of the heart and of the diaphragm. These strokes are repeated from 15 to 20 times, and are succeeded by a pause, during which he strikes the chest over the heart repeatedly with the palm of his hand. In favorable cases this method is early successful, and sometimes a twitching of the lids or of the angles of the mouth appears with surprising rapidity as the first sign of returning life. As soon as these symptoms are noted, the simple manipulation above described must be earnestly continued, and persevered in for from half to one hour, for with their cessation the phenomena indicating

beginning return of life also cease. Generally the face soon assumes a slight reddish tint, and at the same time a faint pulsation may be felt in the carotids. By this method Frank has seen life return in 14 cases, amongst whom were such as had hung or drowned themselves, those asphyxiated by carbolic oxide, and in one case by croup. In three cases of asphyxia by coal-gas, and in one case of apparent death by chloroform, the method described alone succeeded. Frank, therefore, advises the practising physician not to lose time with other procedures, but at once to employ a method which, in his hands, has proved so universally successful.— *New York Medical Times.*

Detection of Certain Medicines in the Urine.— *Iodide of Potassium.*— Mix the urine with a few drops of fuming nitric acid and about one-fourth the volume of chloroform, and shake. After settling the chloroform will show a reddish-violet tint.

Bromide of Potassium.— Add to the urine *fresh* chlorine water and chloroform, and shake; if bromine be present the chloroform will give a yellow color. Bromine is detected only in large quantities, and the chlorine water must be fresh.

Salicylic Acid.— On adding ferric chloride to urine it will assume a bluish-violet color. If the quantity of urine is large evaporate it, or extract the salicylic acid by shaking with a volume of ether equal to the urine, and applying the test to the ether. The urine in this case should be acidulated with sulphuric acid.

Antipyrin.— Antipyrin colors the urine yellowish-red or blood-red. It is easy to confound it with urine containing blood, since either of these colored urines is red by transparent and greenish by reflected light. After the addition of a few drops of ferric chloride the color of the urine, which is reddish-yellow in thin layers, is converted into a handsome red.

Chrysophanic Acid (from Rhubarb or Senna).— On adding solution of potassa to urine voided after the use of rhubarb or senna — the urine in this case is naturally of an intensely yellow or greenish-yellow tint — it acquires a yellowish-red to red tint. The reaction is more distinct when the urine is shaken in a test-tube, and the potassa added to the ether, the latter assumes a red color at the line of contact.

Santonin gives a yellow or greenish and caustic potassa gives a red reaction. The red reaction is red as for chrysophanic acid, but can be distinguished by the fact that santonine-stained urine does not yield its coloring principle to ether, as in the case of the former.—*Abstract from the American Druggist.*

A Cure of Tuberculosis.—Prof. Luton, of Reims, in a recent long article, concludes that the cure of tuberculosis can generally be obtained by means of the phosphate of copper, which, however, must be in the nascent state and soluble in an alkaline body. For 25 years Dr. Luton has sought for this cure, and he thinks he has found a specific. He employs the following formula:

Neutral acetate of copper	0.15 grain;
Crystalized phosphate of sodium	0.75 grain;
Glycerine, Powdered licorice,	each, a sufficient quantity.

This is for one pill.

A double decomposition takes place in the stomach, and there is a specific action on the part of the copper, with a dynamic action on the part of the phosphorous in the preparation.—*N. Y. Medical Journal.*

An ordinance has recently been put in force at Paris which provides for a corps of physicians for the theatre, one of whom must be present during each performance.—*Med. Review.*

MEDICAL EXAMINATION.

Prof.—If you were called to a man who had swallowed an ounce of corrosive sublimate, what would you administer?

Student.—I would call in the nearest parson, and administer the *sacrament.*

Prof.—Good. Why is the metatarsus so-called?

Student.—Because it was discovered by Saul of Tarsus.

Prof.—Who gave the metatarsus its name?

Student.—Hippocrates.

Prof.—How so?

Student.—Because the first account of it he ever met with, he *met at Tarsus.*

Prof.— Why is the rectum so-called?

Student.— Because *rectus* is Latin for *right*, and that is the right name.

Prof.— Are liquors intoxicating?

Student.— Yes.

Prof.— How about the *liquor amnii?*

Student.— Very. F. B.

Book Reviews.

A Manual of General Pathology. Designed as an Introduction to the Practice of Medicine. By Joseph Frank Payne, M. D., Oxon., F. R. C. P. Pp. 524, with 153 engravings and a colored plate. Lea Bros. & Co., Philadelphia, 1888. Price $3.50.

Many years ago the Treatise on General Pathology, by Dr. Williams, was considered the best introduction to general medicine, of its kind, which could be placed in the hands of the student. Although superseded in many respects by more recent writings, it will always remain worthy of reading, but its legitimate successor is found in this new book. Dr. Payne has just put forth a work which is rather an introduction to general pathology than a text book on pathological histology. The distinction is one which it is worth while to make. The book under review is an attempt to give a general knowledge of disease which shall serve as an introduction to the student of special diseases, and seems to be a happy consumation of the intentions of the author. The first portion is given up to the processes of disease, beginning with plethora and anemia, and passes on to inflammations, hypertrophies, tumors, variations in quality of the blood, then to the actual causes of disease, including traumatisms, ferments and animal poisons, specific inflammations, parasites, animal and vegetable, concluding with a summary of methods of examining bacteria. We detect in it no wide divergence of views from those generally assumed by the most advanced pathologists of the day, while all is said in a very concise and attractive way with nothing of importance to the student left out, nothing superfluous inserted. The illustrations are many of them original and an excellent colored plate

serves as a frontispiece. We are glad to see that a chapter on septic and cadaveric poisons gives just such a summary of our present knowledge as every student ought to commit to memory. We have a warm welcome for the work and hope to see it recommended by every teacher of medicine throughout the country. It has been presented by its publishers in very compact and attractive form.

A Text Book of Human Physiology, By Austin Flint, M. D., LL. D. Fourth edition, entirely rewritten, with 316 figures in the text and two plates. Pp. 872. New York: D. Appleton & Co., 1888; Buffalo: Otto Ulbrich.

It is scarcely necessary to write any words of commendation of Flint's Manual of Physiology, which already has passed through several editions, has been a standard text-book for most of the colleges of the country, and is no where more popular than in Buffalo and New York where Dr. Flint has taught. The third edition was published in 1880, but the advance in physiological science has been so rapid that although that edition was, at the time of issue, fully abreast of recent discoveries, the present edition, issued only a few years later, has required to be completely rewritten. Nothing speaks more highly for the devotion of students of physiology to their work than the fact thus stated. Elaborate descriptions of apparatus and methods have not been inserted, since the work is intended rather for the student than the teacher, less as a manual than a work for every-day office and library use.

We could wish to see the metric system made the standard instead of finding metric equivalents of old weights and measures placed in brackets. Sixty-three old figures have been discarded and 61 new ones introduced. This will show the endeavors put forth by the author and publishers to make the work representative. Its typographical appearance leaves nothing for criticism, and the work, as a whole, will be welcomed by all who know Flint either personally or by reputation.

The Physician's Interpreter in Four Languages. Specially Arranged for Diagnosis. F. A. Davis, Philadelphia, 1888.

This is a little pocket manual of 200 pages, giving in English, French, German and Italian, the questions which a physician would

most desire to ask, with suitable answers. Nothing of exactly the same character has appeared, and the little book certainly meets a professional want. There is a systematic arrangement of questions on the various branches of practical medicine, as the eye, throat, stomach complaints, special diseases, patient's history, etc. The book has been prepared by one well versed in the four languages included in its scope, who is also one capable of understanding what the doctor most wants to ask. Certainly in the present condition of our country it is not alone those practicing in the cities who need to put their questions in more than one language. Germans, French and Italians are scattered all over this country and are treated by many who speak no foreign tongue, while to many others this little book will prove of great value. It is sold for one dollar.

EXCESSIVE VENERY, MASTURBATION AND CONTINENCE. By Joseph W. Howe, M. D. Pp. 229. New York: E. B. Treat, 1888. Price $2.75.

Attractive or unattractive as the title of this book may be, according to the sentiments of the reader, it yet brings together, from many sources, much information of value. It is hardly the book to put into lay hands, yet it may be well read by the medical man who is brought into contact with youth and their vices. Concerning the importance of its subject matter the wealth of nauseating quack literature leaves no room for doubt. Concerning the method of its treatment opinions may differ. The question of its good taste will be raised by those who like to see all sexual matters discussed only behind closed doors. Those, on the contrary, who believe that the best way to defeat a villian is to puplicly unmask him will say that the author has taken the best course in showing to what depths sexual depravity may lead some alleged human beings. Physicians need to know all the facts pertaining to the abuse or misuse of the sexual organs, yet the book would afford choice reading to the salaciously inclined.

In the matter of treatment the author gives many hints of value, not forgetting that the best of all treatments for sexual vices—chastity or continence—is the most difficult to enforce. Patients who call for such treatment usually desire stimulants for flagging powers rather than cessation of the practices to which they have been addicted. On the whole we advise a perusal of the book.

Abdominal Surgery. By Hal. C. Wyman, M. S., M. D. Detroit: Geo. S. Davis, 1888. Price, 25 cents.

The Theory and Practice of the Ophthalmoscope. By J. Herbert Claiborne, Jr., M. D. Detroit: Geo. S. Davis, 1888. Price, 25 cents.

These constitute two new numbers of that excellent series of manuals called by their publisher *The Physician's Leisure Library.*

Dr. Wyman's tract, on abdominal surgery, makes interesting reading, though one would hardly rely upon it alone for his directions and instruction were he doing much surgery of this kind. It is of great service in two particulars, however, and for these, deserves to be widely spread. It urges all who are ambitious in this line of surgery to first accustom themselves to its minutiae by an extended experience upon the lower animals—and it gives full directions for this kind of work, including the selection and proper fastenings of the animal. The other feature which we particularly commend is the rapid review in which are mentioned the various operations which are performed upon the abdominal viscera. There are many practitioners who allow patients to die without the help that surgery might afford, simply because they are not aware that such help may be gained. After reading this little work they will have learned much in this respect, which it is to be hoped they will give their patients the benefit of.

Dr. Claiborne's brochure furnishes an excellent working description of the use of the ophthalmoscope, and a summary of the optical principles upon which it is constructed and employed. Being detached from a large text-book it is naturally exclusive, and is mainly given over to the determination of errors of refraction. Its enunciation of principles is clear, and its directions simple and to the point. Its description of the vessel and shadow tests is the best which we have met. Were the general practitioner more familiar with the instrument, or did he realize how much he might accomplish with often a few hours trying, he would save many a patient his headache or reddened eyes.

The Nervine Establishment of Dr. A. J. Willard, of Burlington, Vt., has been so successful as to warrant the erection of a new Sanitarium. This is a beautiful and convenient structure, located in the pleasantest part of Burlington, Vermont, and is perfectly adapted

for the health and comfort of nervous invalids. Dr. Willard is to be congratulated on the success of his institution.

In the large class of diarrhœas of children and adults, with griping in the bowels and flatulence, the use of listerine, in doses varying from 10 drops to a teaspoonful (with or without water), has a most salutary and pleasing effect.

It can be administered at short intervals after eating, as soon as regurgitation, distension or acidity occurs. Its action in arresting excessive fermentation is prompt, besides it exercises a decided sedative influence on the mucous membranes of the stomach.

The thymol, menthol, and boracic acid which, with the quota of alcohol necessary in their proper admixture, form the principal elements of listerine, lend to this compound a special value in this class of cases.

BOOKS RECEIVED.

From Lea Bros. & Co., Philadelphia:

Mann's American System of Gynaecology. Vol. II.

From D. Appleton & Co., New York, through Otto Ulbrich, Buffalo:

Hand-book of Phthisiology: G. A. Evans.

NOTICE.

In order to made The Medical Press of greater value to our readers, we offer to print, for not more than two insertions, three-line notices of wants, exchanges, practices for sale, etc., *free of charge.* Such notices should be received by the fifteenth of each month.

WANTS, EXCHANGES, &c.

Practice for Sale.— A good practice in a town of 2,000 inhabitants. Poor health the reason for giving it up. Address, Dr. M. U. Campbell, Wolcott, N. Y.

To Exchange.— For other microscopic preparations. Mountings of nearly all the pathogenic bacteria. Also, cultivations of same in gelatine or agar-agar, for sale or exchange. Address the Editor.

Practice for Sale.— Price $250, cash. A good location for a young man who wishes to do a cash business. No competition. No horse needed. No office rent. Will average $5.00 a day. Present occupant suffering from ill health. Address may be had from the Editor of The Medical Press.

The Medical Press
of Western New York.

VOL. III. DECEMBER, 1888. NO. 12.

EPIDEMIC CEREBRO-SPINAL MENINGITIS IN CENTRAL NEW YORK.

BY WILLIS E. FORD, A. M., M. D., UTICA, N. Y.

[Read before the American Climatological Association, at Washington, D. C., Sept. 19, 1888.]

The etiology of epidemic disorders is shrouded in so much mystery that I may be pardoned for dwelling upon this well-worn topic if I can present to the society any facts which tend to establish a causative relation between climatic conditions and epidemic cerebro-spinal meningitis.

I shall not attempt to discuss the disorder in a general way, but shall content myself with the relation of such facts as may be said to come properly before this society. The literature, the symptomatology, the treatment and the pathology may well be discussed elsewhere. In this society, however, I take it that anything which bears upon the relations of climate to epidemics, even though such facts may fall short of establishing a theory, is nevertheless worthy of mention.

There is an obvious advantage in studying the causation of epidemics in small towns compared with larger cities, where some form of epidemic disorder must always linger to vitiate statistics. Errors can more easily be excluded in sparsely settled districts, where the physicians are able to secure accurate information regarding all the inhabitants.

In January of this year an epidemic occurred in Norwich, N. Y., a town of 6,000 inhabitants, lying 70 miles south of Utica. One of the first cases of this epidemic I was fortunate enough to see, and in subsequent consultations with Drs. Brooks and Stuart, of that place, it was agreed that careful meteorological observations should be made together with sanitary observations.

This work was most carefully and skilfully done and the result is, I believe, a better report than has ever been published on this subject. I was fortunate enough to induce Dr. Brooks to present the details of this report himself, and shall make my own paper correspondingly short in order to give him the time.

Certain striking facts, especially with reference to atmospheric conditions in producing successive crops of cases in this epidemic prompted me to collect such facts as I was able regarding other similar epidemics in Central New York.

I have obtained accounts of eight other epidemics of cerebro-spinal meningitis in this region. It is perhaps necessary to say that the winters of central New York are long and rigorous. The fall of snow is great and the intense cold lasts from three to four months. Two years ago in Utica there were 150 days of sleighing without a break. If the winter proper begins in the last of November there is usually a thaw or break-up in January, of a week's duration, in which the snow melts and the ground is softened by rain. This is followed by sudden and intense cold, the thermometer ranging from zero to 20 degrees below. The frequency of these thaws determines whether the winter is an open one, as it is called, or not.

Now if the winter is steadily cold or has but few thaws the depressing influences of prolonged cold is observed in an increased mortality among the very young, the old and the feeble, while, if the winter is an open one, influenzas, catarrhal inflammations and pneumonias predominate and it is observed that after such a winter typhoid fever is apt to appear. In these nine epidemics the winters were open and the dampness and rain were noted as the constant and striking characteristics of the season.

As showing the relation between weather changes and the production of pneumonia and sporadic cerebro-spinal meningitis, I have here the record for the last ten years, by years and by months, of all deaths from these diseases, occurring in Utica.

The city of Rome, 12 miles west of Utica, in the Mohawk Valley, has never had an epidemic. During the six years ending May last, there have been 13 deaths reported from cerebro-spinal meningitis, two being children of 8 years, one of 15 and the remainder adults. Of these two were in the month of January, three were in February.

one in March, four in May, one each in September, November and December.

NUMBER OF DEATHS EACH MONTH FOR 10 YEARS, FROM CEREBRO-SPINAL MENINGITIS AND PNEUMONIA, AS RECORDED IN THE CITY OF UTICA, N. Y.

Years.	DISEASE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total each year.
1878	Cerebro-Spinal Meningitis...	...	...	...	...	...	...	2	...	...	...	...	1	3
	Pneumonia	5	2	...	1	1	1	...	...	2	2	1	2	17
1879	Cerebro-Spinal Meningitis...	1	...	...	1	...	...	...	...	...	...	1	...	3
	Pneumonia	...	3	2	2	4	...	...	1	...	...	...	5	17
1880	Cerebro-Spinal Meningitis...	...	...	1	...	...	...	...	...	...	...	1	...	2
	Pneumonia	3	2	3	4	4	1	2	2	1	1	1	2	26
1881	Cerebro-Spinal Meningitis...	...	...	...	...	...	...	...	...	...	..	1	...	1
	Pneumonia	2	3	1	4	3	2	1	1	...	...	...	3	20
1882	Cerebro-Spinal Meningitis...	1	3	...	...	1	...	...	...	..	...	.	...	5
	Pneumonia	5	1	2	7	7	5	4	5	2	1	4	1	44
1883	Cerebro-Spinal Meningitis...	...	...	...	...	...	...	...	...	...	...	...	...	0
	Pneumonia	2	3	1	8	9	1	3	...	2	2	3	6	40
1884	Cerebro-Spinal Meningitis...	...	1	...	...	...	...	1	...	...	...	...	...	2
	Pneumonia	2	...	7	4	4	2	1	1	...	1	4	1	27
1885	Cerebro-Spinal Meningitis...	...	...	...	1	...	...	...	1	...	...	...	...	2
	Pneumonia	7	5	6	6	7	2	...	1	...	2	2	3	41
1886	Cerebro-Spinal Meningitis...	...	2	2	1	2	2	...	2	...	...	...	...	11
	Pneumonia	6	5	2	9	4	5	6	...	2	3	5	2	49
1887	Cerebro-Spinal Meningitis...	...	...	1	3	...	2	1	...	...	...	...	...	7
	Pneumonia	5	8	6	3	8	3	4	3	4	7	4	3	58
Totals for 10 years, Meningitis..		2	6	4	6	3	4	4	3	0	0	3	1	36
Totals for 10 years, Pneumonia..		37	32	30	48	51	22	21	14	13	19	24	28	339

The earliest epidemic of which we have any account in central New York appeared in Richfield, Otsego county, 30 miles south of Utica, in 1852. Dr. Alonzo Churchill published, in 1867, a short account of this in the Transactions of the Medical Society of the State of New York. He has recently given me a more detailed account, taken from his notes. This epidemic occurred in a rather sparsely settled upland farming region, the locality being free from malaria; the territory covered included a radius of about 10 miles.

The sanitary condition of houses not noted. The recorded cases establish the fact that it was cerebro-spinal meningitis and the few autopsies made confirm the diagnosis. There were about 40 cases, mostly of the fulminating order, in this little community, mostly children and youth, and the mortality was about 12 per cent. There was no other prevailing illness. It was confined to the late fall months and disappeared when settled cold weather came on. The damp, changeable weather which plays such an important part in the production of inflammatory diseases of the respiratory tract in this region seemed to produce this epidemic, and this new disease took the place of and seemed to exclude everything else.

In 1857 an epidemic occurred on the high uplands in Salisbury, Herkimer county, back of Little falls, 30 miles east of Utica. This has never been recorded, and I get my information from physicians who saw it. There were about 100 cases, and the mortality at first was very high, though after two months the severity of the epidemic seemed less. It began in the last of December, 1856. The winter, which is usually very severe in that region, was open and very changeable and such as ordinarily produced catarrhal troubles, though during the entire epidemic there was no other epidemic disease. Dr. H. A. Moors, who furnished much of the information, says: "To the best of my memory we did not have any severe cases of any disease during the winter excepting spinal meningitis, but under similar circumstances and similar weather we have pneumonia and all inflammatory diseases. As far as I know there was no cause for the epidemic but the sudden and severe changes in the atmosphere."

The notes of this epidemic are not complete enough to enable me to give the characteristic forms of the disorder but are clear upon the question of diagnosis. Six months later, in the fall of 1857, there occurred an epidemic of typhoid fever covering the same territory. I can get no accurate statistics as to the number of cases, but the same observer says: "I saw and treated more cases of typhoid fever in the six months than I have ever seen since in any 10 years." It was rare that more than one case occurred in a family during the epidemic of meningitis.

In March, 1858, in Sherburne, a small village 30 miles south of Utica, Dr. C. S. Lyman observed an epidemic of 80 cases, and at the

time prepared a paper on the subject. The paper was never published, however, and Dr. Lyman has kindly allowed me to use his facts. Of the 80 cases reported, evidently including the abortive type, 9 died, not quite 12 per cent. No unsanitary condition of houses is mentioned, and no other epidemic disease was present in the town or followed, and the epidemic ceased with settled, dry weather. The town is on level ground between rather high hills, has no water supply and no system of drainage. The soil, which is essentially the same in all the localities mentioned, is a heavy loam, underneath which is gravel in varying degrees of thickness, and under all is a clay bed. The thaws and rains of March and April, with but few days of cold at a time, are characteristic of every season in this lattitude.

In 1865, in Cedarville and the adjoining town of Litchfield, 15 miles northeast of Utica, an epidemic began the last of October and lasted about three months. Snow had fallen early in October, but did not remain, and then followed cold rains and very changeable weather. In this rather sparsely settled community of well-to-do farmers about 40 cases occurred, but the mortality was not high, about 10 per cent of well defined cases. The country is an upland, broken region, the elevation being perhaps from 200 to 300 feet above the adjacent Mohawk Valley. No other epidemic prevailed or followed. The hygienic condition of the houses in which the disease occurred is reported as good, though how far such a statement can be considered final is doubtful. The next statement is more to the point, that is, that usually but one case occurred in a family and the "best families" were most often attacked.

In March, 1872, in the village of Frankfort, 10 miles east of Utica, in the Mohawk Valley, there occurred an epidemic that was confined to the village itself and that continued three months, giving 50 cases, mostly children and youths, the mortality being about 13 per cent. Autopsies confirmed the diagnosis that the epidemic was genuine. In so small a village 50 cases mean one-tenth of the whole population and of course the record of cases is not hard to obtain. Here the dwellings are low down on the ground and there is no system of water supply or drainage, and the cellars were many of them damp. At this time of year the first general thaw occurs, washing the accumulated detritus of winter into the soil, or perchance into the wells and cellars.

In May the epidemic disappeared, and inasmuch as the sanitary conditions remained the same the weather alone seemed to account for its disappearance. No other epidemic prevailed at the time or followed.

In February, 1873, another sharp, well defined epidemic returned to the same little village and attacked mostly those under 20 years of age. There were about the same number of cases. Drs. Parkhurst and Skiff, who observed these epidemics, both say that the mortality was about 10 per cent. of the well marked cases, and that the so-called abortive ones were excluded from the statistics. The disease, the first time, was found on nearly every street in the village but did not spread to the suburbs. In the second epidemic it did not spread to the surrounding territory of say a radius of two miles. It has not prevailed since and no other epidemic prevailed at the time or followed. "The weather was cold but changeable, should say unusually so. Discovered nothing in the sanitary condition of things in the village or in families from which disease would result. The two epidemics were distinct and, I think, entirely disconnected."

In October, 1879, in the town of Winfield, 20 miles south of Utica a small epidemic, 30 cases, occurred among farmers during a wet open season, the mortality of which I cannot ascertain but is given from memory as 12 per cent. of all cases. The account of the atmospheric conditions, however, is clear and to the point: "Severe cold for a few days and changing to warm and then to cold." Dr. Moors maintains that the sanitary condition of the houses was good. This epidemic was cut short by the coming on of settled cold winter weather.

In 1883, in Canastota, 40 miles west of Utica in the Mohawk Valley there began an epidemic of cerebro-spinal meningitis which was more fatal than any of the preceding ones and which continued for a period of 18 months, declining in settled weather, either of summer or winter, to return in the spring and fall when the cold rains and changeable weather came on.

The first cases were late in the fall and were very fatal. These were of the sudden or fulminating type and the eruption present in nearly every case is described as "purpuric." Sometimes the spots were very small and sometimes as large as a 10 cent silver piece.

Dr. William Taylor who observed the epidemic and took the notes writes me: "More than three quarters of our cases occurred north of the canal on the lowest ground of the village, and in nearly every family where cerebro-spinal fever showed itself there was some faulty sanitary condition about the premises. Damp, unventilated cellars were often present and, as I think, are a very prolific cause when the epidemic tendency exists."

There were several cases in some families though in no instance were all the members affected. The general type of the disease is characterized by Dr. Taylor as beginning with "shivering, intense headache, or vertigo or both, and usually by vomiting. Subsequently delirium alternating with somnolence or a state of dulness or stupor, an acutely painful condition of the whole system with spasms, sometimes of a tetanoid character, of certain groups of muscles, particularly those of the neck."

Of 60 cases one quarter died, and a small proportion of the remainder were impaired by deafness, paralysis, etc. After the epidemic proper had disappeared there occurred an occasional case for four years or more.

In the Norwich epidemic, 112 cases, which I consider worthy of a more detailed account, the cases also came in crops developed by cold, rainy, changeable weather and were checked by steady cold. Twenty-nine cases developed in the quarter section where bad drainage and a generally unsanitary condition was found as against 36 cases occurring in the other three equally large sections of the town proper. The mortality in this epidemic was 33⅓ per cent. of all well authenticated cases, not including the abortive type. Typhoid fever has now appeared on the same ground, three cases being reported during the last six weeks.

The fair inference from these facts, collected with considerable care from nine small isolated epidemics, is that cold rainy unseasonable weather is the constant factor in the production of the epidemics. That settled dry weather, either cold or warm, checked the further development of the disorder. That markedly unsanitary conditions tended to increase the number of cases in a locality where an epidemic was in progress and raised to a marked degree the mortality. That these epidemics were not related to any other epidemic disorder, but

seemed to take the place of the usual inflammatory disease of the respiratory tract.

The fact that in two instances out of the nine, typhoid fever of an epidemic character followed within a year, though it never preceded, is not sufficient to establish a probability that both disorders are generated from the same or analagous specific germs. North of Utica, in that region known as the Black River country, extending 100 miles or more, and adjacent to, and bordering on the Adriondack wilderness no epidemic, so far as I can learn, has occurred. This country, including Watertown, as well as several large villages, is well-known for the salubrity and dryness of its climate. Typhoid fever is common enough and other epidemics such as diphtheria prevail but bronchial and pulmonary diseases are rare. Indeed our patients with pulmonary diseases do as well in much of this region as in the evergreen forests only a few miles to the east. The region is cold, the winters are severe but the soil, which is sandy, does not retain moisture and does now allow the evaporation back into the atmosphere which produces pulmonary troubles. The dryness of the climate, therefore, and the purity of the air because the soil does not give back the germs by evaporation, are the chief characteristics of this region.

As to the opinion that overcrowding and bad ventilation, to which were ascribed the earlier epidemics, as for instance in barracks, and which Prof. Hirsch lays down as the reason why epidemics occur most frequently in winter, an opinion endorsed by Dr. J. Lewis Smith in this country, the facts I have brought forward do not confirm it.

Long severe winters do not produce it. Indeed the cold weather which sends people indoors, checks the spread of the epidemic. In the Canastota epidemic for instance, and especially in the Norwich epidemic, successive crops of cases appeared with mild thawing weather and promptly stopped with steady cold. As bearing also upon this question the table which I referred to a moment ago gives 36 deaths from sporadic cases during the last 10 years in Utica, a city with a population of about 45,000, where in certain quarters overcrowding and filth diseases must be acknowledged. November, December, and January — three cold months — only give five cases in 10 years and the disease has never been epidemic.

If it be that a specific germ causes this disorder, and I believe

some day this will be established, moisture and temperature not much below freezing seem to be essential to its activity. That the drift of medical opinion is toward the theory that the disease is produced by the pneumonococcus pneumoniæ is certain. Of 12 articles on this subject appearing within the last year only one author considers the disease miasmatic and contagious. Richter (in Breslauer aerztl. Zeit) though Levich, of Philadelphia, considers epidemic catarrhal fever closely allied to it. (Medical Record.)

I should go beyond the limits of this short paper, however, if I referred to the literature of this interesting subject.

That the mortality is so low in epidemics in country districts is not wholly due to errors in the reported statistics, for it is well known that the mortality from pneumonia and from typhoid fever is much less among farmers than among dwellers in the towns where conditions of exhausted vitality either from mental strain or from errors of living are more commonly found.

AN EPIDEMIC OF CEREBRO-SPINAL MENINGITIS.

BY LEROY J. BROOKS, M. D., NORWICH, N. Y.

[Read before the American Climatological Association, at Washington, D. C., Sept. 19, 1888.]

One of the epidemics of cerebro-spinal meningitis referred to by Dr. Ford, occured in Norwich, Chenango Co., N. Y., and its vicinity during the months of February, March, April, May, and June of the present year (1888). One hundred and twelve cases were reported. In order to establish the fact that the disease was genuine epidemic cerebro-spinal meningitis, I will give a brief synopsis of the clinical histories of the cases.

Following the usual classification there were of Meningitis Foudroyante or Fulmininating, 20 cases; Meningitis Continuing, or those of longer duration, 92; Meningitis-Abortive — number not recorded and not included in the above.

MENINGITIS FOUDROYANTE.

Premonitory symptoms not uniformly present and when so varied in duration from 12 hours to three or four days, and consisted of

irregular chilly sensations, neuralgic pains, languor, loss of appetite, with furred tongue and perhaps naused. Occasionally slight swelling of one or more joints. In the majority of cases the premonitory symptoms were not sufficiently marked to be characteristic.

The attack commenced almost invariably with vomiting persistent and uncontrollable. Rigors or sharp chills followed by elevation of temperature varying from 100° to 106°. Delirium or an intense apathy, violent headache most marked at the base of the brain. Spinal pain and rigidity and generally retraction of the head, with occasional distinct opisthotonos. The cases terminated either in convulsions and paralysis, coma, or in a collapse resembling a cholera collapse without convulsions or coma. An abundant and distinct petechial eruption existed in every instance and in two there were large extravasations of blood into the skin.

As near as can be learned, 5 died in convulsions, 4 in coma, 7 in collapse, 1 recovered with hemiplegia, 3 not stated.

The duration was as follows: Three, 6 hours; four, 12 to 15 hours: seven, 24 to 36 hours; two, 36 to 48 hours; two, 48 to 72 hours; two not stated.

In an occasional instance an attack would commence mildly, continue so for a short time and then suddenly develop the fulminating character and death result in one of the ways mentioned. A single case may be quoted as better illustrating this type. W. M., five years old, complained during the morning of nausea and irregular chills, at 2 P. M. had a sharp chill, followed by a temperature of 105½°, vomited almost constantly, became wildly delirious, body was thickly dotted with petechiæ and several extravasations of blood the size of a silver dollar; at 7 P. M. was pulseless at the wrist; at 9 was seized with a severe convulsion, the convulsions continuing all night, the right side becoming paralyzed at 4 A. M. and the patient died in a comatose state at 10 A. M., just 26 hours from the first manifestation of the disease.

MENINGITIS CONTINUANS (2nd class).

This class were more gradual in development, although occasionally commencing with violent symptoms. It was commonly thought that if a case, commencing violently, rallied from the first violence its

prospects were better than if commencing more quietly. The prodromotory stage was similar to the first variety. The attack commenced with chills, more or less pronounced, almost invariably vomiting, intense basal headache, rigidity of neck and retraction of head, an herpetic, papular, or petechial eruption. The subsequent history presented an irregular temperature curve, ranging from 100° to 103° or 105° with frequent intervals when it become normal or subnormal and with an equally variable pulse rate, in many instances being rapid out of all proportion to other symptoms, and at others, more particularly in the later developments, abnormally slow. Delirium was present in a proportion of the cases although many of the milder attacks did not exhibit serious mental disturbances. Many rallied after a few days, through a slow convalesence, others gradually sank, with low delirium and many phases of mental aberation, more or less convulsive action, progressive and uncontrollable emaciation, contractured limbs, local or general paralysis, with eventual death from asthenia, or from the effects of cerebral pressure.

An analysis of the reported cases shows as follows: Vomiting — In nearly all cases and a most uniform symptom.

Convulsions — At beginning, 15. During course, 5. At terminus, 6.

Paralysis — Local, 2. General, 3 (hemiplegia).

Retraction of head — Seventy-five per cent.

Eruption — Petechiæ, 28. Papular, 7. Herpetic, about 50 per cent. and associated with other eruptions. Absence of eruption, none noted.

Pupils and ocular disturbances — Contracted, dialated, irregular, frequent variations in same case and generally a part of each history. Unlike, 6. Double vision, noted in 6.

Disturbances of special sense — Deafness, total 1; partial 6 (reported).

Sequelæ — Paralysis, hemiplegia. Blindness, (in one eye) 1. Deafness, total, 1; partial, 1. Abscesses, 3; parotid, 1, kidney, 1. pharyngeal, 1. Mental defects, 1 mentally "weak." Nerve lesions: 1 blind; 1 eye with retinal paralysis. Albuminuria, 2.

Whole number of deaths, 35.

Number partially recovered, 4.

Number fully recovered, 75.

ABORTIVE TYPE.

Those of the abortive type are not included in the number stated because of the difficulty in separating them from cases of hysteria and nervous fear produced by the prevailence of the disease. Many of these were also of a neuralgic, or rheumatic nature, due to the prevailing atmospheric disturbances. It is, therefore, necessary to refer further to this class. I think this description, which Dr. Ford will verify, will fully identify the disease. We will give under this head the following table of results.

Norwich, 72, with 23 deaths. N. Norwich, 18, with 3 deaths. Plymouth, 16, with 5 deaths. Oxford, 12, with 4 deaths. Preston, 2, with no deaths.

METEROLOGICAL AND TELLURIC CONSIDERATIONS.

The winter of 1887 and 1888 was characterized by an unusual amount of severe weather with heavy snow-falls and but one light thaw (last week in December) until the middle of February. January was marked by many and frequent extremes, but free from rains and without the usual January thaw. Thus January 2nd the thermometer was 26°; 3rd, 8°; not varying much until the 10th, when it was 24°; 11th, 6°; 14th, 20°; 15th, 40°; reaching 18° and 20° on the 18th and 19th. On the 20th, 2° below, and on the 23rd and 24th, 12° below; 25th, 8° below; 26th, 20° above; on the 28th and 29th at zero. There were three severe cold waves — the 11th and 12th, 23rd and 24th, and the 28th and 29th. February commenced with the thermometer at 6° above, and the early part of the month maintained cold and clear weather until the middle of the month, when there was the beginning of a "break-up." On the 9th, it was 8° below zero with fair weather, but severe cold northwest winds; on the 10th it was 10° above; 11th, 20° above; 13th, 30° above; dropping on the 15th, to 9° above; 16th, 4° below, and clear and cold winds; rising on the 17th, to 30° above, with cold rain; 18th, 24°; 20th, 40°; and continuing with about the same temperature, with cold rains and a general breaking up, melting of snow, high water and surface thawing until the 5th of March. From the 5th until the 10th of March the weather was warm and the thaw continued but with less rain. On the 10th of March it grew cold with cold northwest wind and terminated

in the blizzard of March 13th, 14th, and 15th. This in turn was followed by elevation of temperature, cold rains, and a general thaw. We again had a cold wave on the 25th, the thermometer stood at 4°; 26th, 2°, reaching zero the same day towards evening. On the 26th, it rose to 27°; 27th, 28°; 28th, 40°, with cold rains mingled with snow. This condition continued during the first week of April, followed by pleasant weather.

From this date the weather was too irregular to classify, but there were varying rains and pleasant weather during the rest of the season.

In December, during the slight "thaw" referred to, a case occurred in Norwich, apparently of mild rheumatism, doing well, when suddenly there was a chill, followed by high fever, delirium, severe cerebral congestion, petechial eruption, and death in coma 12 hours from the beginning of the attack. Cerebro-spinal meningitis was not thought of at the time, but in the light of the latter experiences it may be considered the first "writing on the wall." On the 13th of February, at the time of the first "break-up" of 1888, a case of scarlatina was reported which on investigation was found to have an irregular papular eruption, with a few scattered petechiæ, and disproportional cerebral symptoms, and but moderate fever. The child died in a condition of collapse in a few hours. On the 13th, also, a woman 35 years old was taken with vomiting, fever, cerebral pain, retraction of the head, and on the second day hemiplegia. On the 14th of February another child was seized with similar symptoms, with the addition of petechiæ, that died four months later, after a full characteristic history of spinal fever. On the 24th of February a case of the fulminating type occurred in Plymouth, eight miles north; on the 27th, a second case of the same type occurred in the same family; on the 28th, a third and a fourth; the two latter being of the slower nature. Two others of the same family had at the same time the abortive type. On the 26th of February another case occurred in Norwich, also of the fulminating type. On the 27th and 28th, new cases were reported from Plymouth and Oxford, eight miles below.

Summing up the reports, without further detail, we find the reported time of the beginning of the attacks from the various sections as follows: One commenced December, 1887; 3 February 13th to 15th; 46 between Feb. 24th and March 10th; 1 March 18th; 12

between March 18th and 24th; 17 between March 28th and April 5th; 14 since April 11th. Twenty-two not stated except the month, as March, April or May.

The importence of this statement lies in the question of the relationship of the time of the occurrence of the new cases to the existing atmospheric conditions.

It will be readily observed that there were successive crops of cases with intervals in which no cases occurred. These intervals were with but slight exception at the time of the colder and dry weather and the new attacks invariably came on with the breaking up and the cold rains, surface thawing, high water and elevated temperature.

The return of the lower temperature at once stopped the increase of new attacks. We draw therefore the following conclusion: Elevated temperature, with extreme moisture, particularly with cold rains, following prolonged cold with especially northwest winds, make an atmospheric condition favorable to the production of cerebro spinal fever.

SANITARY CONSIDERATIONS.

The village of Norwich lies in the southern central part of New York State, in a valley about two miles wide, between high hills and practically surrounded by them. At the west side of the valley at the foot of the hills is a large creek, and at the foot of the eastern hills is a river of medium size. The creek referred to comes through a narrow valley and starts in the town of Plymouth, the point referred as having cases of spinal fever coincident with the Norwich epidemic, and empties into the Chenango River at the lower end of Norwich Village. Eight miles below Norwich, on the same river and in the same valley, is Oxford, where 12 of the reported cases occurred. Eleven miles above Norwich, on the same river and in the same valley is located Sherburne, the location of a severe epidemic of spinal fever in the year of 1860, and one referred to in Dr. Ford's paper. North Norwich lies six miles above Norwich in the same valley. Eighteen of the reported cases were from this town, where cases also occurred in 1860.

The earlier maps of Norwich show that a branch of the creek passed through the center of the town and made the greater part of the village an island which was low and swampy. At the north end of

the village is a bluff with another at the west side less marked. The general character of the soil is — first a layer of loam varying from two to four feet deep, second a layer of gravel and sand, shallow in the lower portions, but at the southwest bluff from 25 to 30 feet deep, and underneath this a layer of blue clay at a varying depth from the surface. This clay bed is impenetrable and retains everything above it.

There is no system of sewerage, the drains and closets being made in the soil. A system of water supply exists, the resevoir being three miles from the village, and for the last three years the extra material has been washed into the soil. The general direction of the water current is from northwest towards the southeast. At the northwest end of the village was a slaughter house and another at the northern part, as shown on the map, both in the corporation, both kept in a filthy condition and surrounded by large "hog yards". The northeast section of the village is the most thickly settled, and contains numerous stables, shops, tannery, and an abandoned basin nearly a quarter of a mile in length, that has been used for cesspool purposes for several years without cleaning. The northwest and the southeast are next in order of unsanitary conditions, while the southwest, from the fact that the clay bed is deeper, that it receives less of the general drainage, and that the fall of the land is greater, has a great advantage over the remainder of the village. The prolonged and severe winter had caused the ground to be frozen at an unusual depth and this associated with the natural construction of the soil resulted in a retention of all accumulations in the cesspools, vaults, etc., in the places where deposited instead of draining off as in the ordinary winter season. This was made apparent when in an attempt to improve the local sanitation hundreds of loads of these materials were found and removed by the Board of Health.

A general inspection was made of each section of the village, dividing the town into quarter sections. In the northeast section there had been 29 cases. In 17 of the houses the sanitary condition was reported as exceptionally bad, in five fair but not good, and in the remaining seven no fault could be found. In the northwest, 11 bad, 3 fair, 4 good. Southeast, 9 bad, 2 fair, 2 good. Southwest, 3 bad, 1 fair, 2 good.

The "bad" referred to full and filthy cesspools and vaults, contamination of the water by such or other sources, and accumulations in the cellars, or in damp or water filled cellars. In but few instances were cesspools or vaults properly trapped or ventilated.

In the northwest, were a population of 1395, with 18 cases, 1 in 77. Northeast, population 1599, with 29 cases, 1 in 55. Southeast, population 1204, 13 cases, 1 in 92. Southwest, population 780, 4 cases, 1 in 195.

But two cases occurred on the "bluffs" referred to and those were on the southwestern. The great depth of the gravel and sand bed of the western one and its advantage in drainage, and the advantage in the drainage of the northern (which has a rocky bed with a large or rather a steep water fall) seems to account for this immunity. Of the two cases referred to, one occurred March 8th, the patient was a young man who had been sent home from school because of mental exhaustion from overstudy. He had suffered from severe headaches for several weeks at intervals. The second, was a child that had had a tendency to brain irritation from birth. In both the susceptibility to the external causative influences, whatever they were, could easily account for the localization of the attacks without other causes.

The reports from the isolated places out of the village where cases occurred were generally "good" but in many instances the house was surrounded with the usual farm rubbish, cesspools were unventilated, the cellars unventilated, and more or less vegetable accumulation or surface water stood about the house. Our conclusions are, then, that while unsanitary conditions do not produce cerebro-spinal meningitis, that they have much influence in localizing it when the proper causative condition exists.

CONTAGIOUSNESS.

The answer from the different reporters was universally "No." The only evidence that supported the theory was that in a few instances more than one case occurred in the same family. In the different branches of one family there were eight who had the disease during the course of the epidemic.

In another four, in another five, in one Oxford family four, and in two families two each. The evidence becomes less valuable, however,

when we find that these cases occurred almost simultaneously with each other or were so far separated as not to show any relationship with each other. It demonstrates a family susceptibility, however, and is suggestive of the importance of avoiding, in such instances, the epidemic influence. Nurses and physicians did not contract the disease and many cases occurred where it was certain that origin from other cases was an impossibility.

COINCIDENT DISEASES.

The vital statistics of the town of Norwich, for the year 1888, shows the deaths to be as follows: Pneumonia, 1; diphtheria, 3; disease of the heart, 13; phthisis, 15; cerebro-spinal meningitis, 23; varying causes, stillbirths, 20.

Careful inquiry shows that there was no prevalence of pneumonia either in Norwich or in any of the surrounding towns. There were eight cases of diphtheria reported during the season with three deaths from laryngeal implication. No scarlatina reported. An epidemic of measles of a mild type commenced about the middle of June and there were about 100 cases with but one death.

In January there was the usual number of cases of influenza, a disease that prevails usually, at times, every year. The latter statement is made only from the recollection of physicians, inasmuch as the disease is not, as a rule, severe enough to demand special note.

SOME OBSERVATIONS UPON THE RELATIONSHIPS OF THE EYE IN THE GENERAL PRACTICE OF MEDICINE.

BY B. H. GROVE, M. D.
(*One of the Surgeons at the Buffalo Eye and Ear Infirmary.*)

[Read before the Buffalo Pathological Society.]

For nearly nine years my attention has been especially directed to the study of opthalmology. During this time it has been my rule to keep a complete and careful history of all cases. This custom has afforded abundant opportunity for the clinical study of cases both in private practice and infirmary work. The review and study of these records of cases has naturally produced certain impres-

sions upon my mind from which certain deductionshave been drawn. It seemed to me, therefore, eminently proper to present briefly and informally for your consideration, this evening, some of these observations pertaining to the relationship of certain affections of the eye to the general practice of medicine.

Of course, time will not allow an exhaustive review of this subject, nor have I any desire to weary you with technicalities. Therefore my aim will be to present only such phases of the subject as it would seem should afford interest and, moreover, contain some suggestions of practical value.

As physicians, it is my opinion, we are often too hasty in our diagnosis. We should give more attention to detail and study with greater care our records of symptoms. It may be considered brilliant to arrive at a hasty diagnosis, but sooner or later we may make the mistake of a Velpeau, or, as in the case of a once famous Dublin surgeon, by our over-confidence plunge the scalpel into an ancurismal tumor instead of a pus sac. To be sure, in medicine, a mistaken diagnosis is not apt to be so startling in its consequences as is the case in surgery, for the wandering steps may be in a measure retraced and covered up, yet there results often unnecessary suffering to the patient and an injury to our own reputation.

The forming of a diagnosis, the utterance of a prognosis and the laying down of a plan for treatment all demand certain particular cautions. We may learn them by our mistakes, but less haste will diminish this necessity. It is taken for granted, in presenting this paper for your consideration, this evening, that no intelligent member of the profession will deny the advisability or desirability of the specialist's opinion in a certain character of cases. I must admit, however, that in accordance with my experience, quite a number of practitioners in good standing, by their actions at least, or more strictly speaking, by their failure to act, believe the contrary. In fact, they appear to have no use for such a member of the profession until what could safely have been remedied is either beyond, or just within, the possibility of relief.

I feel warranted in saying that from the history of numerous cases which might be related, the reference of patients is often too long delayed, with the natural consequence of inferior results, and it

may be the establishment of a corresponding lack of confidence. This suggests the relationship sustained by the specialist to the general practitioner. It can only be of the happiest nature if the professional conduct is honorable and the accepted barriers of the medical domain are respected. No written Code of Ethics, however strong its language, can practically regulate this matter. Since we are all infallible, charity, consideration and caution must mutually direct and govern us.

It has been charged that the ophthalmologist with other specialists lays too much stress upon trivial conditions, that his vision is too much restricted, that the enthusiasm in his limited field of work and the continued rumination on signs and symptoms of diseases in his department of study, have a tendency to warp his judgment and lessen his interest in general medicine.

This in a measure is true and natural, still there is always a happy medium here as in other pursuits. It is, however, the concentration of one's best energies upon some definite work that makes the services of a specialist, at times, so desirable. As regards the eye in general practice, I would have you, for convenience sake, consider the question under two divisions.

First, those cases and conditions which the general practitioner, himself can just as well treat, and secondly, those conditions which make it next to imperative that the specialist should be consulted. I use the expression imperative because there are many circumstances where a physician renders himself liable, morally if not legally, through his failure, either on account of ignorance or carelessness.

It would seem proper to arrange our cases clinically under four anatomical divisions.

First.— Some of the affections of the muscles involving errors of refraction.

Second.— Some of the affections pertaining to the conjunctiva.

Third.— Some of the affections of the cornea and iris.

Fourth.— Some of the affections pertaining to the fundus, or in other words, the interior of the eye.

In the first place, then, let me direct your attention briefly to some cases with errors of refraction, or in other terms, cases requiring spectacles. Such patients ordinarily present no manifestations of

inflammation of their eyes, though they frequently complain of such reflex symptoms as headache, dizziness, and nausea. On the other hand, there may be present blepharitis or a congested appearance of the edges of the eyelids as well as of the conjunctiva, which we will learn later can only be relieved by properly fitted lenses. In your examination of such cases, learn if there is complete remission of pain about the eyes in the morning or if this cephalalgia only follows upon some effort of the eyes. If this is the case and you can satisfy yourself of the absence of organic disease, the error of refraction is almost certain to be the provoking cause. This would be a suitable case for reference to some oculist and not to an optician.

In an analysis of 25 cases of refraction I found more than half of the number had received treatment for head or stomach affections. Two cases recently under observation were supposed to have brain complication on account of marked dizziness, with diplopia. In a paper on this subject, some time ago, I fully discussed this question and showed how hypermetropia and astigmatism could account for many of the obscure and reflex symptoms above mentioned. With hypermetropia there is often present a convergent squint, and though it is not the best practice, as a rule, to make full tenotomy on a child under 10 years of age, still, properly fitting glasses with the use of atropia sulphate will generally afford relief and often completely correct the convergence. Of the various errors of refraction, that of nearsightedness is the most serious, for, in the higher degrees, detachment of the retina may occur, with complete loss of vision. In nearsightedness you remember, the eye is too long. The focus of objects falls in front of the retina. Suitable concave spectacles correct this unnatural condition and remove the strain. At the same time, the dangers of progressive myopia are much lessened.

In hypermetropia or in farsighted eyes, the eyeball is too short and hence the focus of objects falls behind the retina. A muscular effort more or less severe is continually produced to compensate, in a measure, for the error and, hence, numerous reflex symptoms occur which are often confusing to the physicians and annoying to the patient. The following brief histories of cases are selected from my records:

Mary ———, aged 15 years, has experienced severe headaches, confined generally to the frontal region. She suffers occasional

attacks of dizziness and nausea after using the eyes for the near point.

The family physician has tested the vision and finds the patient can see well at the far point, and read ordinary newspaper print at a distance of 12 inches. In the meantime various medicines had been prescribed for the head and stomach troubles. Finally the patient was taken by her parents to another physician. He suspected from the history that the eyes were the real source or at least made up a factor of the complication and referred the case to me. Although the vision was apparently normal both for the near and far point, I advised the use of atropia sulphate to paralize the ciliary muscle. An unusually high degree of latent hypermetropia was discovered. The strength of the glasses was gradually increased until nearly all of the defect was corrected and the patient is now altogether free from unpleasant symptoms.

I present the history of this case somewhat in detail as it represents quite a large class of similar conditions.

T. G., aged 25 years, has complained of headache for many months. The cephalalgia is experienced mostly at the base of the brain but also through the temples. Upon every effort to prosecute his work there are darting pains through and in the region of his eyes. The physician has used various sedatives but relief is only temporary. He suspects locomotor ataxia and brings the patient to me for an ophthalmoscopic examination. The interior of the eye was found to be normal but the characteristic appearance of hypermetropia was noted and the degree, which was moderate, was satisfied by proper lenses. As soon as the patient became accustomed to the spectacles he was free from his former complaints.

Miss M. W., aged 42, was brought to my office for an examination with the ophthalmoscope. Some brain lesion was suspected. Diplopia or double vision was present, and she could not continue, for any length of time, at work. Her gait was uncertain and the patient was much alarmed.

After a careful examination with prisms, I found a moderate degree only of convergent strabismus associated with farsightedness. In this case, the hypermetropia had produced the squint, and the diplopia with other nervous conditions, was caused by the strabismus. A

partial tenotomy and properly fitted lenses relieved every unfavorable symptom.

There is still another refractive condition of the eye, not so common or even as readily suspected by the general practitioner, known as astigmatism. The occasion of trouble in these cases is owing to the various meridians of the cornea being unequal in concave.

This condition can be compared, in a measure, to the shape of the bowl of a spoon. Astigmatism of a very moderate degree does occasionally produce very unpleasant symptoms, and this is especially the rule when the defect is in the vertical meridian. The following case is an example of this affection:

Miss C. M., aged 35 years, has suffered for many years with headaches located in the temporal region. She has received treatment for neuralgia, but relief was only partial. For hours after using her eyes peculiar sensations about the head would be complained of. She was directed to have an examination of the eye and a very weak astigmatic error in the vertical meridian was detected and satisfied with appropriate spectacles. Her headaches and other annoying sensations disappeared in a few weeks. Many examples of such cases might be narrated but these will suffice to demonstrate that an error of refraction is a factor in diagnosis worthy of remembrance.

AFFECTIONS OF THE CONJUNCTIVA AND CORNEA.

The general practitioner should especially be familiar with diseases of this region for they are more particularly in his province. The greatest care and best judgment is necessary for successful treatment. It will not suffice to give the eye a hasty glance and then write your favorite prescription for a "cold in the eye." This may give rise to errors more or less serious in their results. Whatever is worth doing at all is worth doing well and surely this applies to the examination of this portion of the eye. My experience teaches that the physician is liable often to take too much for granted. If you have not the time or inclination to make a thorough examination, then the case should be referred to some one who will find out exactly what the affection is and how much of the eye is involved. This may be considered an extreme representation, but many cases which have come under my observation at the Buffalo Eye and Ear Infirmary and in

private work justify the statement. The following notes represent some of the conditions suggesting complications :

A patient visits you complaining of a "scum" before her eyes. The conjunctiva is inflamed and you call it a case of simple conjunctivitis. The ordinary eye lotions do not afford relief. The reason is, there is a partial stricture of the tearduct causing what is known as lachrymal conjunctivitis. In such a case the simple operation upon the stricture is the only sensible treatment. Soon another patient calls, saying he has a "cold in the eye." Do not take your patient's diagnosis, however, for granted, but examine carefully the cornea and various portions of the conjunctiva before prescribing your favorite remedy for such conditions. You may find sone little foreign body lodged on the cornea or elsewhere. Remove the irritating substance and the conjunctivitis is soon corrected.

Perhaps the next case may be granular conjunctivitis. Immediately you associate with this affection the copper crystal treatment but fail to obtain any relief. It may be on account of some dyscrasia of the system or some obstruction or catarrhal condition of the nose. The following brief notes of two cases will explain such a condition :

Mary S———, aged 19 years, came to the Buffalo Eye and Ear Infirmary, one year ago, with a typical case of granular conjunctivitis. The various local applications were employed but the benefit derived was very insignificant. The hygienic surroundings of her home were, shortly after this, greatly improved and the system sustained by tonic treatment. From this time the appearances of the eye began to change for the better and finally she was discharged entirely relieved.

Six months ago, John ——— consulted me for a granular conjunctivitis of some four months duration. The usual methods for treatment were applied but scarcely any improvement was noticed until an existing nasal catarrh was attended to and obstructions in the nose removed.

PURULENT CONJUNCTIVITIS.

I will mention only that form of purulent conjunctivitis appearing among young infants, known as conjunctivitis neonatorum. It is a good example of purulent conjunctivitis and by all means the most essential. Institutions for the blind afford instructions for a large

number of unfortunate cases bearing the evidences of having suffered from this form of conjunctivitis.

Physicians cannot conscientiously dispose of cases with this affection by advising some eye lotion applied on compresses or even trusting more sensible measures to the nurse alone. My experience teaches me that many physicians neglect to examine these cases with proper attention. It is necessary daily to open the lids thoroughly and inspect the condition of the cornea. If this cannot be done, do not attempt to treat the case. My notes show a number of sad results dependent upon carelessness in this respect.

In this class of cases the amount of purulent secretion is not so much the cause of anxiety as the liability of the perforation of the cornea. If, therefore, the cornea is inspected daily, the majority of cases will make a good recovery by observing perfect cleanliness, and using a saturated solution of boracic acid.

Of course, when any deposit begins to form on the cornea, a solution of atropia sulphate should be used. In those cases even where perforation of the cornea follows, such treatment, palpably so indicated, would lessen many of the otherwise sad results. Even when the corneal ulcer has penetrated nearly through the cornea the progress of the disease may be impeded by one or more paracenteses of the cornea so as to allow the aqueous humor to drain off. While discussing this subject I would simply remind you of the dangers of using lead lotions where the cornea is implicated. As you are aware, deposits of carbonate of lead are formed.

IRITIS.

A patient may call, saying he has a "cold in the eye." If his diagnosis is correct the plan of treatment is quite immaterial, on the other hand, if the disease is iritis, the method of treatment is very essential and a careless examination on the part of the physician may affect the integrity of the eye for a life-time. If there is a pain in the eyeball and over the eyebrow, which is nearly always worse at night. If there is ciliary injections without much secretion from conjunctiva. If the patient has a rheumatic diathesis or has contracted syphilis, you will not often err in a diagnosis of iritis.

Your judgment will indicate appropriate internal medication, but

by all means do not delay the use of atropia sulphate. My experience in an analysis of 40 cases teaches that many physicians use this mydriatic in too weak solutions. In case synechia has formed, it is my custom to employ as strong a solution as four to five grains of atropia sulphate to one ounce of water. A mixture of this strength, used cautiously every three to six hours, is much more effective than a weaker solution used proportionately more often.

Allow me next to call your attention to glaucoma. This disease may be very insidious in its course or so sudden as to cause much alarm. In either form the physician should be sufficiently acquainted with the symptoms to recognize the source of the mischief, especially since surgical relief is possible in many cases. I refer, of course, to the operation of iridectomy. It is a fact that frequently cases of glaucoma receive treatment by reputable physicians for attacks of biliousness.

I select from my notes a brief history of such a case that is typical and may be of interest.

Mr. A. B., aged 55 years, was seized with a severe frontal headache, complained of having "cloudy vision" and suffered from nausea. There was present slight conjunctivitis of the left eye, and pain running down the nose. These symptoms were supposed by the family physician to be dependent upon a "bilious attack" and treatment in accordance was prescribed. Very soon the eye symptoms became more decided and I was asked to examine the case. It proved to be a severe case of glaucoma. There were dilation of the pupil and increased tention of the eyeball among other signs that occur with this affection. The pain in the eye now became intolerable and I made iridectomy under very unfavorable conditions. The intense pain was relieved in a very short time and the vision improved. Soon afterwards the other eye became likewise affected. An operation was repeatedly and earnestly urged, but as often refused. Four months later the left eye which was operated upon was useful while in the right eye there was barely perception of light.

At this time I want to enter a plea for a more general use of the ophthalmoscope among physicians. To be expert in its manipulation, of course, requires considerable experience, still there are many conditions where the general practitioner might employ it with profit

and satisfaction. I will mention but one case which demonstrates its use in diagnosis.

One year ago, Mr. S. G. came to consult me about his eyes, on the recommendation of his family physician. The patient was on his way down town to his place of business. Commercial pursuits had taxed his strength quite severely for some months and for two weeks he had been under the medical treatment of a reputable physician for nervous prostration. The subjective signs surely seemed to warrant the diagnosis. However, I made an ophthalmoscopic examination and discovered a typical example of albuminuric retinitis. The urine proved to contain by bulk one-third of albumen. The patient was advised to return home at once aud the family physician was called. Notwithstanding the best of care and attention, the patient died five days later.

It was with some hesitation, gentlemen, that I prepared a paper of this kind, because the time allowed for its presentation permitted only a partial review of the subject. My purpose has been in no wise to censure, but, from a careful record of cases, to show some of the more common mistakes that can arise, in your practice, with diseases of the eye, and urge more method and care in your examination of such affections.

ARMY MEDICAL MUSEUM.—Dr. John S. Billings states that on the first of July last the museum contained the following specimens :

Comparative Anatomy	1,689
Pathological	8,354
Medals	384
Microscopical Specimens	10,416
Normal Human Anatomy	2,961
Instruments and Apparatus	814
Microscopes	141
Miscellaneous	835

Besides these there are 375 specimens pertaining to normal human anatomy and 726 to pathological anatomy, which are in what is called the provisional series.

Leucocythæmia Considered as the Cancer of the Blood.—Dr. L. Bard, of Lyons, points out the close similarity between leucocythæmia and malignant diseases of the more solid tissues. The growth of pathological tissue, *i. e.*, the excess of white blood globules, their progressive development and multiplication, the freedom from any inflammatory process, the onset of a special cachexia, and the final fatal termination in spite of treatment, all remind the author that the process is malignant, and well deserves the name of cancer of the blood.

The author puts aside, as accessory, nonpathognomonic factors of the disease, the hypertrophy of the spleen, lymphatic ganglia, and occasionally the other hematopoietic organs, as the liver, marrow, closed follicles of the intestine, the thymus gland, and the supra-renal capsules.

He points out that the pathognomonic features of the disease are the increase in the number of small, young, truly embryonic leucocytes.

Malignancy, as the author says, is not the special attribute of any one tissue, but is common to all. The one essential character of the malignant process is the rapid proliferation and constant increase of the cells of the tissue attacked, and the accumulation of cells, young, embryonic, and arrested, as it were, in the first stages of their specific development. So in the blood, in leucocythæmia, the leucocytes (or cancer cells) are greatly increased in number (25 or more times as numerous), while the small leucocytes (embryonal cells) actually swarm in the blood (sometimes 80 times as numerous as the leucocytes themselves). Leucocythæmia thus corresponds closely to our anatomical notions of malignant tumors. If the process does not give rise to a tumor, *i. e.*, a solid mass, it is because, in the tumor, the new formation conforms, in its essential features, to the original tissue. The blood, a fluid tissue, gives rise to tumors of the same nature.—*Lyon Medical Analectic*

Dr. O'Hanlan, of the Gouverneur Hospital, reports a case of œdema of the lungs, which was relieved by turning the patient flat on the chest with the head hanging down. The serum flowed from the mouth and nose, and the breathing was promptly relieved.—*New York Medical Times.*

The Medical Press

OF WESTERN NEW YORK.

Published by THE LAKESIDE PUBLISHING CO., Buffalo, N. Y.

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Subscription Price: $2.00 per Annum.

All business communications should be addressed to THE LAKESIDE PUBLISHING CO., Publishers, 41–43 Franklin Street; all others to the Editor, 510 Delaware Avenue.

BUFFALO, N. Y., DECEMBER, 1888.

VARIETIES OF APHASIA.

At a recent meeting of the New York Academy of Medicine Dr. Starr read a paper on aphasia and apraxia, their varieties and the methods of treatment and detection of each. In the course of this essay he made some important and interesting points. The former division of disturbances of speech was into two great classes of sensory and motor aphasia, followed by further subdivision into word-deafness and word-blindness, agraphia and paraphasia. The accepted notion of to-day is that each word has a complex mental substratum which may be termed the word-image made up of a number of memory pictures. It is a fundamental position in the accepted theory of cerebral localization that memories are the residue of perceptions and are, therefore, localizable in the regions of the brain concerned in perception. For the general symptom of inability to recognize the use or purpose of an object the term apraxia is employed. To test for apraxia it is only necessary to present various objects to a person in various ways and notice whether he recognizes them. He may or may not be able to name them, but the question in point is, is it evident that the objects awaken an idea in his mind? The importance of this is manifested by the fact that Macewen has very lately operated for a lesion of the angular gyrus localized by this symptom. Aside from mind-blindness another variety of apraxia is known as mind-deafness;

in fact it has as many varieties as there are organs of sensation. Dr. Starr brought out one feature of special interest in his study of this, namely, that the lesion has always been found in the left hemisphere in right-handed persons and in the right hemisphere in left-handed persons. He had collected nine cases of apraxia with word-blindness, in all of which the lesion involved the cortex of the supra-marginal and angular gyri, or the tracts posterior to these in the white matter beneath them. This symptom of apraxia is always associated with some form of aphasia, hence all cases of the latter should be examined for the former. So far as we can at present state, it would seem that memory pictures of objects are located on the same side of the brain that presides over speech.

He next directed attention to the fact that four separate memories make up the image of each word: First, memory of the sound of the word; second, memory of the appearance of the word; third, memory of the effort necessary for its pronunciation, and fourth, memory of the effort concerned in writing. The third of these is the ordinary form of motor aphasia due to the lesion of Broca's center. In many cases of aphasia the symptoms do not point to any one of these pure forms but a combination of different characteristics will be found. To examine an aphasic thoroughly it is necessary to test, first, the power to understand speech and musical tones; second, the power to recall the spoken or written name of objects seen, heard, handled, tasted or smelled; third, the power to understand printed or written words; fourth the power to speak voluntarily, to articulate clearly and to combine words properly; fifth, the power to repeat a spoken word; sixth, the power to read aloud and to understand that which is thus read; seventh, the power to write voluntarily and to read what has been written; eighth, the power to write at dictation; ninth, the power to copy; tenth, the power to recognize the use of objects seen, heard, felt, tasted, or smelled.

Dr. Starr's paper goes a long way toward that fine discrimination between recognizably different forms of paralysis of speech which is necessary for an exact localization of brain functions and which is especially necessary for the surgeon before he can operate understandingly.

A MEDICO-LEGAL MUSEUM.

There has been recently instituted in Vienna a Museum of Legal Medicine, which has a wealth of interesting specimens and an opportunity for doing good that will surprise those who have never thought of such an affair. It already comprises some 1,400 specimens, and is the work of Prof. Hofmann. It has been placed in connection with the other collections at the General Hospital. Its specimens are classified according to general subjects, the first of these being the jurisprudence of the sexual organs. Here are to be found a certain number of specimens demonstrating the normal form and construction of the hymen, as well as specimens which illustrate its lacerations and diseases — of interest as well to the obstetrician as in a legal sense. Here also are found collections of all the malformations of the sexual organs of either sex, which will illustrate questions of a delicate nature brought up occasionally in the courts. Another case contains illustrations of the effects of burns in different degrees and in different parts of the body; for instance, the ulcer of the duodenum, which occasionally follows severe burns, is to be found in this case. Here, too, in this general collection, we find the crania of criminals, as well as their brains, as we find specimens of cancer, syphilis and tuberculosis of the skin from combinations of which differential diagnosis can be made.

Here, also, are collections of poisonous plants and of organic and inorganic poisons; of instruments used to procure abortion; of weapons used with suicidal or homicidal intent, and of the lesions which these weapons produce. The collection contains also a large number of foreign bodies removed from the respiratory passages, as well as of foreign bodies found in all the parts of the body; examples of suffocation produced by laryngeal croup, by retropharyngeal abscesses, and of anything which may cause sudden death by asphyxia. Here, also, are the injections, including the injected preparations made by Prof. Hofman, to demonstrate the impossibility of passage of blood through the carotids after hanging; a large number of fractured skulls, injured by falls and blows; a number of spinal columns and pelves as well as bones of the extremities which show the result of injury or of gunshot wounds. All these contribute their individual interest to this

excellent collection. By no means the least important feature in it is a large collection of pathological specimens showing the effect of various poisons, such as oxalic acid, phosphorus, etc. Finally one finds numerous specimens intended for aids in a determination of the identity of a dead body, showing the results of different processes of burial, embalming and so on, as well as the difficulty in certain cases of distinguishing even the sex of individuals.

Prof. Hofmann and his faculty have certainly rendered a large service to the professional world in the formation and perpetuation of such a superb collection.

In the September number of The Medical Press, Dr. R. T. French reported a case of "Peculiar Convulsions of Traumatic Origin" in which symptoms violent in the extreme and of exceedingly obscure character were apparently entirely relieved by the removal of a small cicatrix of the scalp. Additional interest is attached to the case by the patient's connection with the recent terrible fire and loss of life in the works of the Rochester Steam Gauge and Lantern Co. by whom he was employed as engineer. Since the disaster it has been remarked that for several years past Van Korff has been identified with numerous small fires, including one in the City Hospital while he was a patient there.

The police of Rochester state that they believe Van Korff to be possessed of a mania for starting fires and then reporting them in time, thus getting credit for vigilance. He is now under arrest suspected of having been the cause of the recent calamity. If the opinion of the police be well founded, the apparent pyro-mania of the man will effectually disprove the cure of any save the hysterical element of his malady, and also establish the existence of genuine brain disease.

* * *

The Central New York Medical Society held their 21st annual meeting in Rochester, Nov. 20th, under the presidency of Dr. W. C. Bailey, of Albion. The meeting was a large and enthusiastic one, partaking of an aniversary character, with some 200 members in attendance. The features of the gathering were a long and most interesting address by Prof. E. M. More, in which he detailed his own

researches with regard to fractures and dislocations of the upper extremity. This we shall reproduce in a future number.

Dr. W. S. Ely read a valuable paper on the management of typhoid fever which we will print in our next issue.

Other papers of great interest were read by Drs. Angell, Van de Walker, Armstrong, and Roe. The success of the event was in large measure due to the efforts of Dr. Bailey.

* * *

The recent Whitechapel murders have been the theme of many essays and editorials in both lay and medical journals. There seems to be no doubt but that they are committed by some victim of sexual perversion. A singular feature of the whole affair has been the attitude of some of the British journals, the *British Medical Journal* especially. Its editorial trying to make out that the murderer is some American physician, who is making desperate efforts to collect certain anatomical specimens, is one of the most absurd and silly freaks of journalism of any time or clime. Contrasted with the dignified and learned way in which the medical and psychological aspects of the case have been treated in our home journals it makes a showing not at all to the credit of our foreign contemporary,

* * *

In January, 1889, there will be issued from the press of A. L. Chatterton & Co., New York, a new quarterly entitled *The Journal of Ophthalmology, Otology & Laryngology.*

It will be edited by Geo. S. Norton, M. D., assisted by Chas. Deady, M. D. Subscription price $3.00 per year. The journal will be devoted to original articles upon the three specialties and made of the highest practical value to all interested in the eye, ear, or throat. In addition to original papers by prominent authorities the immense mass of material found at the N. Y. Ophthalmological Hospital will be utilized.

* * *

The second and concluding volume of Prof. Mann's American System of Gynæcology is now before the profession. It has been a colossal undertaking, requiring extreme care in editing, and good judgment in arranging. The work as a whole, is one of extreme value,

and its successful publication with such promptness is in a large measure due to the energy and zeal of its talented editor. Buffalonians may take just pride in the work since three of Buffalo's teachers have been contributors to the work.

* * *

THE Physicians club, of this city, have organized under the name of The Pathological Society, and have determined to hereafter devote their energies entirely in the direction of pathological work and original clinical observation. They have elected permanent officers, with a committee on microscopy, and we shall expect hereafter to publish much good work emanating from their members.

* * *

THE sudden death of Dr. H. B. Sands, of New York, has cast a gloom over professional circles in that city as among his admirers everywhere. By common consent the most eminent of our metropolitan surgeons, and a man of the widest attainments and most polished culture, his loss is, indeed, a sad one and will be mourned by thousands of pupils and friends.

* * *

WE HAVE noticed elsewhere Prof. Vandenbergh's excellent manuals. Arranged in large measure for students in the home institutions with which he is connected, they will be found admirably adapted for self-instruction in drugstores, private laboraties, and in fact everywhere where men are studying chemistry or pharmacy. They certainly reflect great credit upon their author.

* * *

DR. GEO. W. AVERY, of Norwich, N. Y., died Nov. 1st. The funeral services were held in Norwich but the interment was made in Rochester. He was held in the highest esteem by all who knew him.

* * *

DR. ROSWELL PARK has been elected a regular member of the German Congress of Surgeons.

MRS. VERBOSE : I dread typhoid more than any disease I know of.

Mr. Verbose : Typhoid ! You surprise me ! I should think lock-jaw would be your *bete noir.*

Correspondence.

LONDON LETTER.

LONDON, Oct. 15, 1888.

My Dear Doctor.—Among the many medical institutions in London is Mr. Thomas Cooke's School of Anatomy. This name is somewhat misleading as every branch of medicine is taught here; Mr. Cooke, himself, giving his attention only to anatomy and surgery. But first a word concerning this gentleman, who, by the way, was born and lived for some time in Buffalo. He is in the prime of life, holds the B. A., B. Sc., and M. D. degrees of Paris, is a Fellow of the Royal College of Surgeons (Eng.) and a member of many societies. He has had a long anatomical and surgical training, having been previously house-surgeon to the Bicetre, Ste. Eugenie, St. Louis, Larriboissiere and Le Midi; for some years demonstrator of anatomy in the Ecole Pratique de Medicine de Paris, and also in the Westminster Hospital Medical School. He is the author of various papers upon anatomical and surgical subjects and of the Tablets of Anatomy and of Physiology, both of them admirably adapted to their purpose. At present he is surgeon to the Westminster Hospital. With such abundant qualifications and a decided ability to teach (to which may be added 15 years of practical experience) Mr. Cooke is exactly what one would naturally expect — a thorough and practical teacher of anatomy and surgery.

The school meets the requirements of three classes of students, viz.: qualified practitioners and advanced students, students preparing for the primary and pass examinations of the several licensing bodies, and students entering upon their medical studies. Every branch of medicine is taught and theory seems well supplemented with practical laboratory work in chemistry, physiology and histology, attendance upon obstetric cases, and so on, depending upon the branch of medicine. The classes are conducted not as simple lectures but as demonstrations. In fact these are intermediate between a lecture and a "quiz" and surpass the former in driving the subject into the mind of the student and the latter in affording rather more explanation of difficult points on the part of the teacher. All subjects are taken up in rotation so that the classes have practically no beginning and no end.

The school runs throughout the year, the first two weeks in August excepted. By reason of this the student in London can fill in the autumn months when the various medical schools are closed.

My personal experience in this school is confined to the anatomical and surgical classes. Dissection is carried on under the guidance of capable demonstrators and for a certain time each day by Mr. Cooke himself. The parts dissected are to be used whenever desirable for demonstration, a fact which, it must be confessed, makes the dissection less useful to the advanced student from his not being allowed to cut away tissues after examination (certain unimportant ones excepted) and thus being impeded in his deeper dissections. When the part has been thus dissected it is used for future study by students who may not be disecting at the time. However, the beginner can undoubtedly learn much from this course. Mr. Cooke demonstrates three days in the week and his assistant (Mr. Knight) every morning. The surgical course includes surgical anatomy and pathology, bandaging, and operations upon the cadaver. Mr Cooke being able to communicate his thought so clearly and tersely makes a good surgical teacher. The prices for a three months course are as follows: Anatomy $21, surgery 26.50, and operative surgery $32.50. The prices for the longer courses come relatively cheaper as do also certain combinations of these.

The more prominent surgeons are now in London again and work in the different medical schools has just began. During the past two months I have been giving as much time as I could to the various hospitals where, of course, only the assistant surgeons were to be seen. As many of these are men of wide learning and experience and authors of much read works the time has been most profitably spent. Even the less noted men reflect the opinions of their chiefs and so can be advantageously studied.

There are so many prominent surgeons here that it is difficult to select those with whom to study. There is one, however, with whom I have spent more time than any others and the excellence of whose clinic demands mention. I refer to Mr. Keatly, the senior surgeon to the West London Hospital, at Hammersmith, and who is well known to your readers as the author of the "Index of Surgery." Perhaps few men living have a wider knowledge of surgical literature than he,

and he adds to this the valuable quality of doing his own thinking. Many illustrations of this occur from week to week when he discards certain recommended measures, replacing them with his own when he thinks them better suited to the exigencies of the case. That his own thoughts are correct ones the splendid results of his clinic amply prove. His ward seems always to contain interesting cases, and a week rarely passes in which some capital operations are not made. Thus in the week just passed among others were an operation for strangulated femoral hernia, a ligation of the femoral artery for popliteal aneurism and a case of brain tumor in which the skull was trephined. Mr. Keatly works carefully and has much success with his cases. Ether is his favorite anæsthetic for adults.

A somewhat extended intercourse with the profession and laity in London has shown me that specialism is regarded with much favor here. Many of the younger medical men are planning a future in this special line or the other, and the laity have come to think that many things absolutely require a physician devoted to their malady alone. Some amusing examples of this have come to my notice, one of which being quite typical I venture to give you. Shortly after coming to London I was invited, through the courtesy of one of England's most noted surgeons, to be present at one of his operations. During the operation a telegram was handed to him which he read and handed over to me. It ran thus : " Can you recommend us a good surgeon for the elbow joint ? " The joke about the matter was that at the same time he was treating the ankle joint of another member of the same family, a sister of the patient for whom the inquiry was made and living in the same honse. Other and equally absurd examples often come up from time to time and make one wonder where the matter will end.

London gives much promise in the line of surgical study about which more anon. Very sincerely,

JOHN PARMENTER.

Editor Medical Press; Dear Sir : — The warfare recently inaugurated by the medical societies against advertisements of quacks and patent medicines in the religious press should be kept up for years to come with undiminished vigor. A weekly paper is published in

Boston, Mass., under the ostentatious motto : "Against Rum, Romanism, and Rebellion, for Freedom, Country, and God," a sample copy of which has recently been sent to all the leading libraries of the country with a polite invitation to subscribe for it because it discusses the questions involved in its motto with more vigor than any other publication. This paper contains, beside the publishers, advertisements and announcements, by actual measurement 108 inches of advertisements; of these, 16 inches are taken up by railroad timetables; 41 by the ordinary advertisers, and 47 inches, almost one-half of the whole extent of this paper's advertising columns, is filled with announcements of medical institutes where cancer and consumption are permanently cured, not to mention a host of minor evils; where wrinkles are removed and old faces are made to look young again; eulogies on liniments, syrups, blood purifiers, etc., are given in the usual form, to wind up with Scott's emulsion of cod liver oil! For a paper which professes to fight under so high a standard, these advertisers certainly form queer company, to say the least. The managers of the patent medicine and quack medical institutes evidently know in what direction to look for sheep to be sheared, and display more judgment in the distribution of their advertising patronage than the owners of the "Rum, Romanism and Rebellion" paper do in the publication of such notices. P.

Society Proceedings.

BUFFALO MEDICAL AND SURGICAL ASSOCIATION

REPORTED BY W. A. HODDICK, M. D., SEC'Y PRO TEM.

Meeting of Nov. 8th. President Van Peyma in the chair.

Dr. Lothrop presented a memoral of Dr. Campbell. (See below.)

Dr. Potter moved that the memorial be spread on the minutes of the society as a record of our respect for the diseased, that a copy of the same be sent to his family, and that the memorial be published in the local medical journals.

Remarks in eulogy of the late Dr. Campbell were made by Drs. Lothrop, Tremaine, Strong, Potter, and others, all deploring greatly that a life so full of promise for the future had been so suddenly cut off.

Voluntary communication.

Dr. Van Peyma presented two clinical obstetric reports. 1. Illustrating the use of ergot in small doses (5 gtt. of ext. fld. every 15 to 20 minutes) as recommended by Dr. Stockton for uterine inertia. Three weeks ago he was called to a case where the membranes had ruptured and all contraction had ceased. Small doses of ergot stimulated natural contractions and were followed by a normal delivery.. 2. A midwife's case of arm presentation with head partly presenting He succeeded in bringing down the head into the superior strait and delivering.

Dr. Lothrop thought case number two was one in which cephalic version was indicated by pushing up the shoulder by means of the presenting arm, pushing the head into the pelvis with the hand on the abdomen. He was decidedly averse to the use of ergot at any time before the delivery of the foetus or even before the expulsion of the secundines. He believed it did more harm than good, except where contractions could not be otherwise excited. During the past ten years he had had occasion to use ergot in but two cases in his practice. The past month had brought him four cases of the 4th or R. O. P. vertex presentation. One was easily delivered by means of the Tarnier forceps. In two of the cases there was posterior rotation with delivery by ordinary forceps. In the others there was anterior rotation.

Dr. Strong was surprised at Dr. Lothrop's infrequent use of ergot. He finds it indispensable in about one-fifth of his cases.

Dr. Wheeler read his paper on "Certain Diseases of the Testicle." He confined himself to the subject of Hydrocele, giving its anatomy, pathology, and ætiology. In treatment he favored the method by incision into the tunica vaginalis, draining and allowing obliteration of the sack to take place by granulation, under an antiseptic dressing.

Discussion.—Dr. Lothrop could not let so admirable a paper pass without notice. Essayists of the present day often strive to present something new, but which is generally of very little practical import. He congratulated the doctor on the concise and complete manner in which he had presented the subject. In treating Hydrocele he preferred to inject carbolic abid. He uses it pure, injecting about half a dram into the sack, kneading and squeezing it out again.

Iodine injections are often successful, the result being sometimes obtained without obliteration of the sack. Sometimes he makes an incision, sewing the two layers of the sack together with a few strands of catgut.

In closing the discussion Dr. Wheeler said that his experience with carbolic acid had been unsatisfactory. He had used the Levis method, injecting from 10 to 20 minims. It has often caused pain, and failed to cure in 10 per cent. of his cases. He believed it better to incise the scrotum, drain the sack, allowing it to fill up with granulations under an antiseptic dressing.

Dr. Tremaine thought it unnecessary to drain the sack. Agglutination of the two layers would take place after incision. He never knew of a case where incision had been made that did not get well.

Essayists for the next meeting were announced as Dr. F. H. Potter —"Treatment of Acute Coryza." Dr. Roswell Park—"Radical Cure of Hernia."

Adjourned to Dec. 4th.

In Memoriam..

FRED. R. CAMPBELL, A. M., M. D.

Died Sept. 14, 1888. Aged 28 years and 7 months.

A life full of promise and usefulness to the world and to the profession has been brought to a close in the early death of the subject of this notice. Enconiums of deserved praise have been lavished upon his brief and remarkable career. Coming to this city a stranger and without social and financial support which render advancement in this life an easy task, he overcame all obstacles to success by his industry, and advanced step by step until at a very early age, he was recognized as one of the most highly accomplished of the junior members of the profession in our city, as a fine classical scholar and writer, as a successful medical teacher, and as a genial and honorable associate and friend. Patient industry and unremitting labor were the secret of his success.

We beg to refer to his personal qualities which commended him to the members of his society. Without any self-assertion, and with a modesty of demeanor which made him always the agreeable associate,

he commanded the love and respect of all, and was the centre of a circle of warm and devoted friends, who loved him for the purity of his life, the constancy of his affections, and the brilliancy of his intellectual attainments.

We refer with pride to his literary effort by which he bequeathed to the profession his only published work "The Language of Medicine," which has received, through the medical press, the most favorable criticism for its intrinsic worth.

While yet young, he was called to a most important chair in the medical department of Niagary University, which he filled with signal ability and gave promise of a capacity to occupy the leading position in the faculty.

In the social and medical organizations with which he was identified the products of his pen exhibited the result of patient and laboring study, and extensive medical, classical and philological learning.

The death of one so well endowed by nature, and so thoroughly equipped by education, for the work of life in the special field of scientific and philanthropic labor which he had chosen, is a loss beyond these feeble words to express, and calls forth our sympathy and sorrow. We lament his early taking off, for the profession loses a bright intellect, a pure heart, a noble nature. We believe the loss we sustain receives its merited compensation in the gain to him of rest from a well spent life, in the world beyond, where with him it will be

Better yet, and better still,
In infinite progression.

Translations.

THE ILLNESS OF EMPEROR FREDERICK III.

From Official Reports by Profs. Bardeleben, Von Bergmann, Dr. Bramann, Profs. Gerhardt, Kussmaul, Drs. Landgraf, Moritz, Schmidt, Profs. Schrœtter, Tobold and Waldeyer.

Especially Trnslated for "The Medical Press" from the "Deustche Med. Wochenschrift."

(CONTINUED FROM PAGE 484.)

It was this which would soon make tracheotomy necessary in case of dyspnœa. At 5 P. M., after a thorough cocainization of the mucus membrane, Bramann made an examination. The regular and continu-

ous increase of the growth of the tumor, and the swelling of the larynx, now also perceptible externally to the left of the tumor, induced Dr. Bramann to urge Sir Morell Mackenzie to call Prof. Von Bergmann in consultation, who would gladly remain in San Remo a few days should tracheotomy be necessary before that time. His proposition was then rejected as on the following day. Dr. Bramann was not called in consultation again until the day of the operation. Had not even seen the royal patient until then. In spite of Dr. Schrader's urgent request for calling Von Bergmann, on account of the increasing dyspnœa, it was not done. On the 8th day of February, Dr. Bramann sought Mackenzie, because the adjutant had informed him of great dyspnœa. He asked him if it were considerable, and whether tracheotomy was impending. If so, it would be advisable to telegraph Von Bergmann at once—better too early than too late. He answered, in his opinion they still had from 8 to 10 days. During the consultation, February 9th, Dr. Bramann was astonished at the appearance of the Crown Prince ; there was considerable dyspnœa and stridor at each inspiration. Speech was apparently difficult. The patient appeared, more than ever before, very much worn and pale. During the laryngoscopic examination the difficulties at respiration were especially noticeable. At inspiration as well as expiration considerable obstruction was strikingly apparent. The entire left half of the larynx, also the left ary-epiglottic fold showed a vast infiltration, as well as the whole posterior wall of the larynx. It was especially true of the region of the false vocal cord, which projected, tumor-like, beyond the median line to the right. The right vocal cord was absolutely immovable. Under the same, particularly its anterior half, was seen a tumor seemingly covered with a tense, pale mucous membrane, which disappeared beneath the swelling toward the left. The rima glottidis could not be recognized anywhere. The passage of air was only possible owing to the different level of the swellings right and left.

Mackenzie now declared without explanation that the dyspnœa had greatly increased since the previous evening, and that it had attained such a degree that they could delay no longer, and that he was in favor of immediate tracheotomy. Drs. Krause and Hovell were likewise of the same opinion. Dr. Bramann acknowledged that the difficulty in breathing was the natural result of the rapidly growing tumor. He appealed to his former assertion, which he repeated, not to operate until

he himself had made observations. As he had seen the royal patient but during the short time of the associated visits, he therefore could not possibly know whether the high degree of dyspnœa was lasting, and not partly due to the irritation and exertion incident to the examination. Thus he could not decide upon an immediate operation, but asked for a postponement of a few hours during which an opportunity might be given him to personally watch the royal patient, and also to urge the immediate presence of Prof. Von. Bergmann. Whereupon Sir Morell Mackenzie declared in case Dr. Bramann did not operate, his responsibility must cease. To this Krause and Hovell agreed.

At 12.30 Mackenzie called upon Dr. Bramann to tell him that the Crown Prince expected him at one o'clock. He could not forbear to tell him again that all further responsibilities as far as he was concerned were at an end, and that from now on he must be held answerable: At one o'clock, Dr. Bramann betook himself to his Imperial Highness, and was at once received by him in his sleeping apartments. The dyspnœa was more marked than in the morning, the stridor very loud, while at every inspiration there was a drawing in of the jugulum and scrobiculus cordis. The lips were pale and slightly blue. The voice was toneless, and speech was only possible with the utmost exertion. In view of the increasing dyspnœa, the possibility of further delay seemed to Dr. Bramann to be cut off, especially a delay of two days, or until the arrival of Prof. Von Bergmann. He therefore informed his Imperial Highness that he considered it dangerous to postpone the operation any longer, and advised its immediate performance, to which he promptly consented.

As everything was in readiness for operation, other difficulties with regard to the chloroform narcosis arose, because Mackenzie energetically opposed its use, with the notion that tracheotomy under chloroform was dangerous ; for this reason it was done in England without anæsthesia. Dr. Bramann replied that up to the time he had performed tracheotomy over 400 times in children and adults under its influence ; that throughout Germany the practice of chloforming was universal, and in the present case he was not prepared to operate otherwise than under circumstances which he considered judicious, and to which he was accustomed, especially as he had placed upon him so great a responsibility. As he, in spite of all remonstrances, adhered to the determination,

and as he was actively supported by Dr. Schrader, Mackenzie finally yielded, but not until he had again declined all responsibilities as to what might eventually take place during the chloroform anæsthesia.

The operation, including the anæsthesia, lasted 20 minutes and was a complete success. Immediately after the operation Dr. Schrader was ordered to telegraph Prof. Von Bergmann that though the tracheotomy had been successful, he was to come at once. Major Von Tynker sent a similar telegram, "Their Imperial Highnesses desire your immediate presence." A third telegram of like import arrived several hours after his departure. The telegram which at 10 A. M. had called Prof. Von Bergmann was in his hands at 2 P. M.

His Majesty, the Emperor, who during the meantime had been notified of the operation which had become necessary, received Prof. Von Bergmann. He asked him with regard to the method of the operation, and requested him to remain with the royal patient until the wound had closed, until all surgical treatment had come to an end. The Emperor, after being notified of the completed operation, again desired to speak to Prof. Von Bergmann. He charged him to take his departure as soon as possible, to make regular reports, and to endeavor to the best of his ability, provided the condition of the patient permitted, to have him brought to Berlin. Prof. Von Bergmann reached San Remo on the evening of February the 11th.

After the first few days following the operation the royal patient was comfortable. The lower dressings and those about the canula were dry. They were neither saturated with blood or other products of the wound. There was no fever, and the respirations were between 16 and 22 per minute. On the morning of the 12th the canula was changed. Prof. Von Bergmann on removing the iodoform gauze convinced himself of the excellent condition of the wound. It had been regularly effected; it lay exactly in the median line, it was free from blood clot, and there was no inflammatory appearance. It is Prof. Von Bergmann's custom not to allow the first canula to remain in position very long. The construction of the canula used by him prevents, first by its curvature and second by its construction with a shield, all pressure on the wall of the trachea. The shield is moveable, with the double tube so connected as to be moveable in all directions, permitting a horizontal as well as a vertical movement.

The curvature of the canula for its upper two-thirds amounts to about the one-sixth part of a quadrant having a radius of 5 cm. The lower third runs straight in the direction of the tangent to this circle. It is self-evident under these circumstances, that if at all possible the pressure would be on the anterior wall of the trachea. Owing to the moveable connection existing between the canula and shield which was fastened to the neck it could only be brought to bear on the trachea when the patient bowed forwards. In standing, especially in lying down, the anterior wall must be disencumbered. Notwithstanding this, Prof. Bergmann after a few days changed the canula, and introduced at times one of a greater or lesser curvature, likewise one that was longer or shorter, in order to protect the structure of the throat and also to change the points of contact with the wound.

There were at hand eighteen of these canulas of various sizes and curves made of silver and hard rubber. From these Dr. Bramann selected such as were appropriate for the existing wound and for the corresponding dimensions of the throat. The one newly introduced differed from the others, which were 8½ cm. long, in that it was ½ cm. shorter and somewhat less acutely curved.

On the 12th and 13th of February there was discovered a tenacious brownish slime during the paroxysms of coughing, which recurred about every three hours. It was found on cleaning the inner canula, or it was coughed through it; small dark dirty looking coagula of blood, also streaks and drops of fresh blood were mingled with it. The expectoration had a bad odor. On the 14th of February as the patient had coughed more frequently during the night, and the expectoration had become more copious, Mackenzie maintained that the blood mixture was due to an ulceration on the posterior laryngeal wall which the canula had caused. Despite Von Bergmann's endeavors to demonstrate that they had to deal with particles that had flown down from the larynx, Mackenzie adhered to his opinion and urged Prof. Von Bergmann to introduce his modified Durham canula. While Prof. Von Bergmann agreed that the difference of opinion regarding the blood streaks and blood points in the expectoration until mutually explained was a matter for the physicians to decide, it pained him to hear at noon of the same day that Mackenzie had told Her Royal Highness, the wife of the Crown Prince, that the more frequent cough-

ing and the brown expectoration were due to an improper canula which had been introduced, and which had irritated the laryngeal mucous membrane. In the evening Dr. Howell showed the Hofmarshall two drawings. One was intended to illustrate the pressure which the canula had caused, while the other showed the rational position of Mackenzie's tube. The day following, Mackenzie's version of the matter was already being discussed in the Berlin and Vienna papers. At all times in like manner the opinion of Mackenzie was made known to the relations as well as to the royal patient himself, the decision made probable by citing his enormons experience, therefore nearly all the mutual conclusions of the physicians were rendered difficult, often before the matter under discussion was settled, often even before it had been broached.

The amount of expectoration varied greatly. Frequently in the forenoon, four to six hours would elapse without coughing. Then would occur attacks of coughing which sometimes lasted a minute or more and which caused the expectoration of 3 cm. of pus into the compresses or filled the inner tube of the canula, necessitating its immediate removal. A sufficient quantity of this expectoration which was obtained February 15th, was employed for a microscopic examination. There were found besides pus and blood corpuscles, numerous shot-like bodies, which undoubtedly contained concentrically arranged epithelial cells, accompanied by pointed growths which consisted of pavement epithelium. In some of the prepared objects, a great many elastic fibres were seen.

On the 12th of February of this year, Mackenzie wrote in "Beliner Klinischen Wochenschrift" as follows: "According to my views the clinical symptoms have always been indicative of a foreign form of disease, and the microscopic investigations corroborated this opinion. Furthermore, medical science of to-day will not allow me to assert that there exists anything more than a chronic inflammation of the larynx, combined with perichronditis." Scarcely before these words were in type, the very important scientific proof to the contrary was shown by that surgeon whose decisive clinical diagnosis in the previous summer had been held so long in doubt.

On the 16th of February, after a sufficient number of preparations had been made, Prof. Von Bergmann invited Dr. Krause, and throug

him the English physician, to convince themselves of his microscopic examination.

Dr. Krause declared himself convinced in view of the newly prepared proof. Mackenzie considered himself incompetent to correctly judge microscopic objects. For in England such matters were entirely referred to the anatomists.

Truly, answered Prof. Von Bergmann, he could not understand the position of a physician whose diagnosis could only be considered as indicating a certain treatment until the knife of the anatomist had verified it. A position whose final consequence would be shown after dissection. Only then eccentric demands were fulfilled. Every day new preparations were delivered ; every day demonstrated two things :

1. The diagnosis of cancer.
2. The fact of the breaking down of the growth.

The longer this lasted, the more pieces of necrosed tissue clung to the coagula in the expectoration, and more abundant appeared the elastic fibres and fragments of muscle. Finally between the 24th and 28th the microscopic investigation revealed pieces of cartilage.

But Mackenzie insisted that Von Bergmann's canula caused all of the disturbance. To the royal relations he complained that Von Bergmann opposed him. He described the use of a canula closed towards the larynx as a hindrance to the further treatment of the laryngeal affection. As soon as he was allowed to introduce his canula all these threatening symptoms, including the bloody expectoration, would disappear, and that he could then also blow in healing powders and other remedies into the larynx. The press, *The British Medical Journal* in particular, asserted that with the removal of the badly-fitting canula the Crown Prince made most satisfactory progress, that the cough and the expectoration had lost its bloody character. But this favorable nature of the expectoration never existed before the death of the royal patient as the reports concerning it show. The condition of the sufferer did not change although various powders were blown through the wound and through the opening in the canula into the larynx. At times there were days when his Imperial Highness would sleep for hours, and then again days of misery when he would walk in the garden, or sit upon the balcony. His general health was seldom disturbed, except by a higher evening temperature and head-

ache. His appetite was satisfactory. Occasionally he was disturbed with pains on swallowing, which radiated from the temporal and auricular region on the left side.

[TO BE CONTINUED.]

Book Reviews.

A System of Gynæcology by American Authors. Edited by Matthew D. Mann, A. M., M. D. Vol. II., illustrated with four colored plates and 361 wood cuts; pp. 1180. Philadelphia: Lea Bros. & Co., 1888.

The second and concluding volume of this great work justifies all that the announcements of its publishers have claimed for it or that the readers of the first volume could expect. In no work of its kind could a more attractive list of authors be presented, nor a better collection of papers be shown. To say nothing of home talent, any volume which includes in its list of contributors such names as those of Drs. Lee, Engelman, Thomas, Gross, Jenks, Baker, Sutton, Lusk, Emmet, Busey, Kelly, Goodell, Battey, Coe, and Harrison, must be worthy of a prominent place in any and every medical library. The paper on hystero-neuroses, for instance, by Dr. Engelmann, is an essay such as the practitioner may search for elsewhere in vain: yet it deals with a most obscure class of cases which sadly need all the light that can be thrown upon them. The paper on Extra-uterine Gestation, by Dr. T. G. Thomas, is perhaps the least satisfactory in the collection, not on account of what it does but for what it does *not* contain. Many would have preferred a more full discussion of the operative treatment of this most grave condition. A paper of one hundred and forty pages on Tumors of the Breast, by Dr. Gross, leaves little to be desired in this direction.

Dr. Sutton's paper on Non-malignant Tumors of the Uterus, and Dr. Lusk's on Malignant Disease of the same organ are excellent summaries of the teachings of the day. Dr. Bache Emmet continues his father's views in the article on Lacerations of the Cervix Uteri. Dr. Goodell's paper on Ovariotomy is prepared after his usual thorough habit and is full and explicit.

It is, however, of the Buffalo contingent that we particularly desire to speak, and with no small degree of pride. Dr. Howell has prepared

a most elaborate and creditable paper upon the pathology of Ovarian Tumors, perhaps the most abstruse and difficult subject dealt with in the volume. It displays an immense amount of research and stamps the writer as a most careful and painstaking student. It comprises just a hundred pages, and deserves to be reprinted as a monograph. The editor, Dr. Mann, has only left himself a comparatively small part of the field, but discusses the Clinical History and Diagnosis of Pelvic Tumors other than Uterine and Tubal, in his accurate and judicial way, including in its scope such features as accidental changes in cysts, complications, conditions simulating tumors, etc. Finally Dr. Park has a rather short chapter on Diseases of the Breast other than Tumors, in which he discusses some rather rare and usually disregarded lesions of the mammæ.

Taken as a whole, there is no more creditable monument to American scholarship and teaching than this system of Dr. Mann's, and its editor and publishers alike are entitled to the earnest gratitude and support of a large profession.

A Labratory Guide in Pharmaceutical Chemistry. With two hundred experiments. By F. P. Vandenbergh, B. S., M. D. Buffalo: Bigelow Publishing Co., 1888.

This admirable little pocket guide for the laboratory by Buffalo's well known teacher of Chemistry has been put forth especially for the needs of the students in the Pharmaceutical and Medical Departments of the University, but will be found to be a most serviceable guide by any and all, either teachers or students. It is essentially a book of directions, and begins with solutions, treating in succession or precipitations, reagents, washing, indicators and test-papers, analytical reactions, acidulous elements, in the illustration of all of which 129 illustrative experiments are briefly detailed. There follows a scheme for determining the composition of an inorganic compound, soluble in water or in acids, which is most valuable. The balance of the volume is taken up with Pharmacopoeal tests, and a few of the most important officinal processes. The volume has been prepared at the expense of a vast amount of time and study and is meant especially for the student in pharmacy.

An abbreviated edition of the same intended for medical students

alone, extracted from the above, has also been published and is entitled, "A Fragment of Vandenbergh's Laboratory Guide in Chemistry." Both books are for sale by Peter Paul & Bro. and will be found invaluable in the laboratory.

Clinical Lectures on Certain Diseases of the Nervous System. By Prof. Charcot. Translated by Dr. E. P. Hurd. Vol. VII. of the Physician's Leisure Library. Detroit: George S. Davis, 1888. Price, 25c.

There is, perhaps, no man living who has done more literary work, and that of the higher order, than Prof. Charcot, and the present collection of lectures consists of selections from his large work in three volumes on "The Diseases of the Nervous System." The collection before us consists of lectures on spasm and hysteria; on choreiform movements and tremblings; on muscular atrophy consequent on articular lesions; on contractures of traumatic origin; on muscular atrophy consecutive to articular rheumatism; and on hysteria in the male. They are translated by Dr. Hurd who has done his work in a most readable way; and aside from its proper value this little volume is perhaps the most readable of any put forth by its publishers. To attempt to criticise the work or the author's methods would be a ridiculous task; we consequently content ourselves with advising physicians to read these lectures.

The Medical News Visiting List for 1889. Philadelphia: Lea Bros. & Co.
The Physician's Visiting List for 1889. Philadelphia: Blakiston Son & Co.

Each of the above visiting lists has its individual good points in which it may justly claim superiority. Careful examination of each reveals a painstaking effort to condense into the smallest possible compass those facts and formulæ to which instant reference may be advantageously made in cases of emergency. It is surprising to find how much can be comprised in a small space and few words, since in this respect the compilers of both lists have been singularly successful.

Hand-Book of Pharmacy and Therapeutics, 248 pages, Third edition, thoroughly revised. Eli Lilly & Co., Indianapolis, July, 1888.

The aim of this book is, as stated in the introduction, "to furnish the busy practitioner a reliable means of ready reference, at once

concise, systematic, and authoritative, to which he may refer with confidence in cases of doubt. Younger members of the profession and medical students will find this little work full of suggestions." It will be sent free to any physician, druggist or medical student by addressing Eli Lilly & Co., Indianapolis, Ind., mentioning this journal.

BOOKS RECEIVED.

From Peter Paul & Bro., Buffalo:

A Laboratory Guide in Pharmaceutical Chemistry: F. P. VANDENBERGH.

A Fragment of Vandebergh's Laboratory Guide: F. P. VANDENBERGH.

From Geo. S. Davis, Detroit:

Clinical Lectures on Certain Diseases of the Nervous System: J. M. CHARCOT.

From Wm. Wood & Co., N. Y.; through J. H. Matteson, Buffalo:

The Ear and its Diseases: SAMUEL SEXTON.

From D. Appleton & Co., New York:

A Treatise on the Diseases of Women: A. J. C. SKEENE.

From E. B. Treat, New York:

Medical Diagnosis: J. GRAHAM BROWN.

From Lea Bros. & Co., Philadelphia:

The Medical News Visiting List for 1889.

From P. Blakiston, Son & Co., Philadelphia:

The Physician's Visiting List for 1889.

NOTICE.

In order to make THE MEDICAL PRESS of greater value to our readers, we offer to print, for not more than two insertions, three-line notices of wants, exchanges, practices for sale, etc., *free of charge*. Such notices should be received by the fifteenth of each month.

WANTS, EXCHANGES, &c.

To Exchange.— For other microscopic preparations. Mountings of nearly all the pathogenic bacteria. Also, cultivations of same in gelatine or agar-agar, for sale or exchange. Address the Editor.

IT is said that a quack doctor in the West has invented a medicine that will cure any disease, and which can also be used as an embalming fluid after death. This man evidently wants "to hog the whole market."

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